

SAFETY DATA SHEET (SDS) according to Regulation (EC) No. 830/2015 amending 1907/2006

| 1.1 | on 1: Identification of the substance/mixture and of the Product identifier: | FAM-Leu-DAP | | |
|---------|--|--|--|--|
| 1.1a | Other means of identification: | FAIVI-Leu-DAP | | |
| | | FIDAD FAMIL DAD FLIOD FAMELIOD DAD | | |
| 1.1b | Alternative product name(s)/ synonyms: | FLDAP, FAM-L-DAP, FLISP, FAM FLISP DAP; a carboxyfluoresco derivative of a leucine linked aminoalkyl phosphonate diphenyl est | | |
| 1.1c | Product number/Catalog #(s): | 6153, 6243 | | |
| 1.1d | Internal identification: | FLDAP; FAM-L-DAP; FLISP; FAM FLISP DAP; a carboxyfluorescein | | |
| 4.0 | Delevent identified was of the substance or | derivative of a leucine linked aminoalkyl phosphonate diphenyl ester | | |
| 1.2 | Relevant identified uses of the substance or mixture and uses advised against: | For research use only. Not for use in diagnostic procedures. | | |
| 1.2a | Brief description of what the substance or mixture is intended to do: | Enzyme inhibitor and serine protease detection reagent. | | |
| 1.3 | Details of the supplier of the SDS: | | | |
| 1.3a | Name: | ImmunoChemistry Technologies, LLC (ICT) | | |
| 1.3b | Address: | 9401 James Avenue South, Suite 155 | | |
| 1.3c | City, State, Zip, Country | Bloomington, MN 55431-2500 USA | | |
| 1.3d | Phone number: | 1-800-829-3194 and 952-888-8788 | | |
| 1.3e | Fax number: | 952-888-8988 | | |
| 1.3f | Website: | www.immunochemistry.com | | |
| 1.3g | Email: | help@immunochemistry.com | | |
| 1.3h | Contact person at ICT: | Quality Documentation Department | | |
| 1.4 | Emergency telephone number: | ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; | | |
| | | ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and | | |
| | | Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted | | |
| | | Canada. 1-800-424-9300 01 +1 703-327-3007. Collect calls accepted | | |
| | n 2: Hazards identification | | | |
| 2.1 | Classification of the substance or mixture: | | | |
| 2.1a | Product is a: | Substance. | | |
| 2.1b | Classification according to (EC) No. 1272/2008 {CLP}: | Does not meet the criteria for classification. | | |
| 2.1c | The most important adverse physiochemical, human health, and environmental effects: | Refer to Sections 9-12. | | |
| 2.2 | Label elements: | None. | | |
| 2.2a | GHS label elements, including precautionary statements: | None. | | |
| 2.2b | Contains: | None. | | |
| 2.2c | Labeling in accordance with (EC) No. 1272/2008: | None. | | |
| 2.2d | Hazard Pictograms (Hazard Symbols): | None. | | |
| 2.2e | Signal word: | None. | | |
| 2.2f | Hazard statements: | None. | | |
| 2.2g | Precautionary statements: | None. | | |
| 2.2h | Supplementary precaution statements: | None. | | |
| 2.3 | Other hazards: | No additional information available. | | |
| 2.3a | Does the chemical meet the criteria for PBT or vPvB? | | | |
| 2.3b | Other hazards which do not result in classification: | No information available. | | |
| Section | on 3: Composition/information on ingredients | | | |
| 3.1 | Substance: | Item is a substance. | | |
| J. I | 3.1a Chemical identity: | FAM-Leu-DAP | | |
| | 3.1b Common name, synonyms, etc.: | None. | | |
| | | 3.1e % 3.1f Classification according to (EC) No. | | |
| | 3 TC CAS number and | | | |
| | 3.1c CAS number and other unique identifiers: 3.1d FC number: | Concentration: 1272/2008 (CLP): | | |
| | other unique identifiers: 3.1d EC number: | Concentration: 1272/2008 {CLP}: 100% Not classified | | |
| | | Concentration: 1272/2008 {CLP}: 100% Not classified. | | |
| 3.1a | other unique identifiers: 3.1d EC number: None. None. | 100% Not classified. | | |
| 3.1g | other unique identifiers: None. 3.1d EC number: None. Chemical identity of any impurity, stabilizing additive, | | | |
| 3.1g | other unique identifiers: None. None. Chemical identity of any impurity, stabilizing additive, or individual constituent other than the main | 100% Not classified. | | |
| 3.1g | other unique identifiers: None. None. Chemical identity of any impurity, stabilizing additive, or individual constituent other than the main constituent, which is itself classified and which | 100% Not classified. | | |
| 3.1g | other unique identifiers: None. None. Chemical identity of any impurity, stabilizing additive, or individual constituent other than the main constituent, which is itself classified and which contributes to the classification (such as product | 100% Not classified. | | |
| 3.1g | other unique identifiers: None. None. Chemical identity of any impurity, stabilizing additive, or individual constituent other than the main constituent, which is itself classified and which | 100% Not classified. | | |

FAM-Leu-DAP SDS; Doc# F17-6146-7-C; Effective: 05/26/2017; Supersedes: F17-6146-7-B; Page 2 of 6

| 1 Description of first aid measures: If concerned, get medical attention/advice and provide physician will SDS information. Wash contaminated clothing before re-use. Naver give anything to an unconscious person. | Section | n 4: First aid measures | | | |
|--|---------|---|---|--|--|
| 4.1a Inhalation: Due to the small packaging the risk of inhalation is minimal. Remove free hair and keep at rest in a comfortable position for breathing, if in breathing, give artificial respiration. Rinse nose and mouth with wate Get medical attention if any disconfroir continues. Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Indication of any disconfort continues. Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly with soap and water for several minutes: Wash skin thoroughly water say with pering of water for several minutes: Wash in | | | If concerned, get medical attention/advice and provide physician with | | |
| 4.1b | | • | | | |
| fersh air and keep at rest in a comfortable position for breathing, live artificial respiration. Rinse nose and mouth with wate Get medical attention if any discomfort continues. 4.1b Skin contact: 4.1c Skin contact: 4.1c Skin contact: 4.1d Indicate the contact of the state | | | give anything to an unconscious person. | | |
| Breathing, give artificial respiration. Rinse nose and mouth with wate Get medical attention if any discomfort continues. | 4.1a | Inhalation: | | | |
| 4.1b Skin contact: Wash skin throorupily with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash throorupily before record the minutes. Cell medical attention if any discomfort continues. 4.1d Ingestion: Promptly wash eyes with plenty of water while lifting the eyelids. Mal sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. Authorized the continues of the medical sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention of a discomfort continues. 4.2 Indication of any interest and delayed: 4.2 Eye contect. 4.2 Eye contect. 4.3 Skin contact. 4.4 Eye contect. 4.4 Eye contect. 4.4 Eye contect. 4.5 Eye contect. 4.6 Eye contect. 4.7 Eye contect. 4.8 Indication of any immediate medical attention and special treatment needed: 4.9 Indication of any immediate medical attention and special treatment needed: 4.1 Indication of any immediate medical attention and special treatment needed: 5.1 Extinguishing measures 5.1 Extinguishing measures 5.1 Extinguishing measures 5.1 Extinguishing measures 5.1 Extinguishing medical: 5.1 Suitable extinguishing medical: 5.1 Our substitute extinguishing medical: 5.1 Our substitute extinguishing medical: 5.1 Extinguishing medical: 5.1 Extinguishing medical: 5.1 Extinguishing medical: 5.2 Eye contective equipment and precautions for mixture: 5.2 Hazardous combustion products: 6.1 Protective measures in fire: 7. Special hazards arising from the substance or mixture: 6.1 Protective measures in fire: 8. Special fireflighting procedures: 8. Special fireflighting procedures: | | | | | |
| 4.1b Skin contact: Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove yocontaminated clothing and shoes and wash thoroughly before reuse. Get medical attention of any discomfort continues. | | | | | |
| continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash throughly before reuse. Get medical attention if any discomfort continues. 4.1d | 1 1h | Skin contact: | | | |
| dothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues. 4.1d Ingestion: | 4.10 | Skiii Contact. | | | |
| 4.1c Eye contact: Promptly wash yes with pind of water while lifting the eyelids. Mai sure to remove any contact lenses from the eyes before initing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDSI Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues. 4.2 Most important symptoms and effects, both acute and delayed: 4.2a Inhalation: May cause coughing or mild irritation. May cause coughing or mild irritation. May cause coughing or mild irritation. Prolonged skin contact may cause mild inflation. May cause discomfort if swallowed. 4.3 Indication of any immediate medical attention and special treatment needed: May cause discomfort if swallowed. 4.3 Notes to physician/first responder: Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. Section 5: Fireflighting measures 5.1 Extinguishing media: Use fire-extinguishing media appropriate for the surrounding material for individual products. Section 5: Fireflighting measures 5.1 Extinguishing media: Use fire-extinguishing media appropriate for the surrounding material was reported in case of accidental exposure, inhalation, or ingestion of this product if in doubt, get medical attention promptly! Water spray, loam, dry powder, or carbon dioxide. None known. Product is not explosive. No dangerous reactions known under norm conditions of use. 1. Louisual fire & explosion hazards: 2. Protective equipment and precautions for fireflighters: 3. Avoice for non-emergency personnel; personal precautions, protective equipment and precautions | | | | | |
| 4.10 Eye contact: Promptly wash eyes with plenty of water while lifting the eyeldes. Mais use to termove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDSI Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical tention if any discomfort continues. 4.2 | | | attention if any discomfort continues. | | |
| sure to remove any contact lenses from the eyes before finsing. Continue to rinse for at least 15 minutes, Get medical attention if any discomfort continues. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDSI Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention and poison control center or medical professional. Get medical attention if any discomfort continues. May cause coughing or mild irritation. May cause coughing or mild irritation. May cause temporary eye irritation. May cause discomfort if swallowed. As a inclusion of any immediate medical attention and special treatment needed: May cause temporary eye irritation. May cause discomfort if swallowed. As pecific first aid measures noted, but lifst aid may still be require in case of accidental exposure, inhalation, or ingestion of this produc if in doubt, get medical attention promptly: May cause temporary eye irritation. May cause discomfort if swallowed. As pecific first aid measures noted, but lifst aid may still be require in case of accidental exposure, inhalation, or ingestion of this produc if in doubt, get medical attention promptly: May cause discomfort if swallowed. May cause discomfort if swallowed. As pecific first aid measures noted, but lifst aid may still be require in case of accidental exposure, inhalation, or ingestion of this product if not exposive. May cause discomfort if swallowed. May cause it moves in the swallowed. May cause it moves in the swallowed. May cause discomfort if swallowed. May cause it moves it moves in the swallowed. May cause it moves in the swallowed. | 4.1c | Eye contact: | Promptly wash eyes with plenty of water while lifting the eyelids. Make | | |
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| FLUIDSI Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get media attention if any discomfort continues. 4.2a Inhalation: | | | | | |
| advice from poison control center or medical professional. Get medical attention if any discomfort continues. 4.2a Inhalation: 4.2b Skin contact: 4.2c Eye contact: 4.3 Ingestion: 4.3 Ingestion: 4.3 Ingestion: 4.3 Ingestion: 5. Fireflighting measures 5.1 Extinguishing media: 5.1 Extinguishing media: 5.1 Unsutable extinguishing media: 5.1 Unsutable extinguishing media: 5.2 Protective equipment and procautions for fireflighters: 5.2 Advice for inferfighters: 5.3 Special fireflighting procedures: 5.3 Special fireflighting procedures: 5.3 Special release measures 6.1 Personal precautions, protective equipment, and emergency procedures: 6.1a Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1a Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1 Personal precautions, protective equipment and emergency procedures: 6.1 Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1 Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1 Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1 Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1 Advice for non-emergency personnel; personal precautions, protective equipment and emergency | 4.1d | Ingestion: | | | |
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| and delayed: 4.2a Inhalation: May cause coughing or mild irritation. 4.2b Skin contact: 4.2c Eye contact: 4.2d Ingestion: May cause temporary eye irritation. May cause disconfort if swallowed. No specific first aid measures noted, but first aid may still be require in class of accidental exposure, inhalation, or ingestion of this product if in doubt, get medical attention promptly! Motes to physician/first responder: Section 5: Firefighting measures 5.1 Extinguishing media: Unsuitable extinguishing media: Unsuitable extinguishing media: Unsuitable extinguishing media: Valer spray, foam, dry powder, or carbon dioxide. None known. Special hazards arising from the substance or mixture: Special hazards arising from the substance or mixture: Droduct is not explosive. No dangerous reactions known under norm conditions of use. Special hazards in fire: Droduct is not explosive. No dangerous reactions known under norm conditions of use. In case of fire, toxic gases may be formed of carbon monoxide (CO) carbon dioxide (CO2; COx). None under normal conditions. Droduct is not explosive. No dangerous reactions known under norm conditions of use. In case of fire, toxic gases may be formed of carbon monoxide (CO) carbon dioxide (CO2; COx). None under normal conditions. Droduct is not explosive. No dangerous reactions known under norm conditions of use. Special protective equipment and precautions for firefighters: Special protective equipment and precautions for firefighters: Special protective equipment and precautions for firefighters: Section 6: Accidental release measures General release measures: General release measures: Mospecific firefighting procedure given. Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazard in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures: General release measures: General release me | 12 | Most important symptoms and effects, both acute | attention if any discomion continues. | | |
| Inhalation: | 4.2 | | · | | |
| A.2c Eye contact: Prolonged skin contact may cause mild irritation. | 4.2a | Inhalation: | | | |
| A.3 Indication of any immediate medical attention and special treatment needed: | 4.2b | Skin contact: | Prolonged skin contact may cause mild irritation. | | |
| Indication of any immediate medical attention and special treatment needed: No specific first aid measures noted, but first aid may still be require in case of accidental exposure, including the including protective of this product if in doubt, get medical attention promptly! Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. | | | | | |
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| If in doubt, get medical attention promptly! | 4.3 | Indication of any immediate medical attention and | | | |
| Section 5: Firefighting measures Suitable extinguishing media: Use fire-extinguishing media appropriate for the surrounding material | | special treatment needed: | | | |
| Section 5: Firefighting measures Use fire-extinguishing media appropriate for the surrounding materia Use fire-extinguishing media appropriate for the surrounding materia Water spray, foam, dry powder, or carbon dioxide. S.1a Suitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. S.1b Unsuitable extinguishing media: None known. | 120 | Notes to physician/first responder: | | | |
| Section 5: Firefighting measures Extinguishing media: Use fire-extinguishing media appropriate for the surrounding material | 4.3a | Notes to physician/ilist responder. | | | |
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| Stringuishing media: Use fire-extinguishing media appropriate for the surrounding materials. | Sectio | n 5: Firefighting measures | | | |
| Suitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide. | | | Use fire-extinguishing media appropriate for the surrounding materials. | | |
| Special hazards arising from the substance or mixture: | 5.1a | Suitable extinguishing media: | | | |
| mixture: conditions of use. | | Unsuitable extinguishing media: | | | |
| carbon dioxide (CO2; COx). None under normal conditions. 5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted. Section 6: Advice for firefighters: Special protective equipment and precautions for firefighters: Special protective equipment and precautions for firefighters: Special protective equipment and precautions for firefighters: Section 6: Accidental release measures 6.1 Personal precautions, protective equipment, and emergency procedures: Section 6: Accidental release measures: Section 6: Accidental release measures Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitably protective clothing, gloves and eye or face protection. Consult professional emergency practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer to Section 8). Remove all sources of ignition sources. No smoking. Section 6: Accidental release measures Use protective equipment appropriate for surrounding materials. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer | | mixture: | | | |
| 5.3c | | · | | | |
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| firefighters: apparatus, if necessary. The product presents no special fire hazard in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Section 6: Accidental release measures 6.1 Personal precautions, protective equipment, and emergency procedures: 6.1a General release measures: Section 6: Accidental release measures Ouse protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | 5.3a | Special firefighting procedures: | | | |
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| Section 6: Accidental release measures 6.1 Personal precautions, protective equipment, and emergency procedures: 6.1a General release measures: Concerned procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | | firefighters: | | | |
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| 6.1a Personal precautions, protective equipment, and emergency procedures: 6.1a General release measures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency personal procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: 6.1b Advice for non-emergency personnel; personal precautions, protective equipment appropriate for surrounding materials. 6.1a No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | Section | n 6: Accidental release measures | | | |
| 6.1a General release measures: Solution of the protective description of the protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | | Personal precautions, protective equipment, and | Use protective equipment appropriate for surrounding materials. | | |
| laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in cate of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | 6.1a | | No specific emergency measures are required other than good | | |
| 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | | | laboratory hygiene and safety practices for small spills. Wear suitable | | |
| Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | | | protective clothing, gloves and eye or face protection. Consult | | |
| precautions, protective equipment and emergency procedures: laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | | | | | |
| procedures: clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitab protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | 6.1b | | | | |
| and personal clothing; use an approved supplied-air respirator, in ca of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitab protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | | | | | |
| of emergency (also refer to Section 8). Remove all sources of ignition Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitabe protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | | procedures: | | | |
| Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitab protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | | | | | |
| vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitab protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | | | | | |
| protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. | | | | | |
| contamination. Consult professional emergency personnel if concerned. | | | | | |
| concerned. | | | | | |
| | | | concerned. | | |
| | 6.10 | Advice for emergency responders; personal | Wear suitable protective clothing, gloves and eye or face protection to | | |
| | 0.10 | | | | |
| procedures: emergency (also refer to Section 8). | 0.10 | precautions, protective equipment and emergency | avoid contact; use an approved supplied-air respirator, in case of | | |

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|----------------------------------|--|---|
| 6.2 | Environmental precautions: | Do not allow to enter drains, sewers, or watercourses. |
| 6.3 | Methods and materials for containment and | Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable |
| | clean up: | |
| | | container for disposal in accordance with local waste regulations (see |
| | | Section 13). Wash spill area thoroughly with plenty of soap and water. |
| 6.4 Deference to other costions: | | Avoid contact with skin or inhalation of spillage, dust, or vapour. |
| 6.4 | Reference to other sections: | Refer to Sections 8 and 13 for additional information. |
| Sootio | n 7. Handling and starage | |
| 7.1 | n 7: Handling and storage Precautions for safe handling: | Do not handle until all safety precautions have been read and |
| 7.1 | recautions for safe flanding. | understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of |
| | | vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate |
| | | personal protection equipment (PPE). Thoroughly wash hands and |
| | | contaminated areas with water and soap before leaving the work site. |
| | | Keep away from sources of ignition. |
| 7.1a | Prevent handling of incompatible substances or | Avoid contact with strong acids and strong oxidizers. |
| 7.10 | mixtures: | 7 Word Software Will Strong dolar and Strong Salaizore. |
| 7.1b | Advice on general occupational hygiene: | Do not eat, drink, or smoke in work areas. Wash hands after use. |
| | , , , , , , , , , , , , , , , , , , , | Remove contaminated clothing and protective equipment before |
| | | entering eating areas. Good personal hygiene is necessary. Follow |
| | | good laboratory hygiene and safety practices. |
| 7.2 | Conditions for safe storage, including any | Refer to product label. Store in cool place. Keep container tightly |
| | incompatibilities: | closed in a dry and well-ventilated place. Containers which are opened |
| | · | must be carefully resealed and kept upright to prevent leakage. Avoid |
| | | spills and release into the environment; keep away from watercourses. |
| 7.3 | Specific end use(s): | For research use only. Not for use in diagnostic procedures. |
| | | |
| Section | n 8: Exposure controls/personal protection | |
| 8.1 | Control parameters: | |
| 8.1a | Occupational exposure limits, such as chemical | Not available. |
| | identity, standard, TWA-8 hours (time weighted | |
| | average), STEL-15 minutes (short term exposure | |
| | limit), etc.: WEL = Workplace Exposure Limit. Sk = | |
| | can be absorbed through skin. | |
| 8.1b | Appropriate engineering controls: | |
| 8.1c | Individual protection measures, such as personal | Wear gloves, protective goggles, and lab coat. |
| | protective equipment: | |
| 8.1d | Safety symbols: | |
| | | |
| | | |
| | | |
| | | |
| 8.2 | Exposure controls: | |
| 8.2a | Process conditions: | Provide eyewash station. |
| 8.2b | Engineering controls: | Ensure that eyewash stations and safety showers are proximal to the |
| | | workstation location. |
| 8.2c | Ventilation controls: | Provide adequate ventilation. |
| 8.2d | Reference to other sections: | Refer to Section 5 for additional information. |
| 8.2e | Eye/face protection: | Wear approved chemical safety goggles where eye exposure is |
| | | reasonably probable or face shield if risk of splashing. |
| 8.2f | Skin protection: | Wear apron or protective clothing in case of contact. |
| 8.2g | Hand protection: | Use suitable protective gloves if risk of skin contact. |
| 8.2h | Respiratory equipment: | Where risk assessment shows air-purifying respirators are appropriate |
| | | use a full-face respirator with multi-purpose combination (US) or type |
| | | ABEK (EN 14387) respirator cartridges as a backup to engineering |
| | | controls. If the respirator is the sole means of protection, use a full-face |
| | | supplied air respirator. Use respirators and components tested and |
| | | approved under appropriate government standards such as NIOSH |
| | | (US) or CEN (EU). |
| 8.2i | Other protection: | Wear appropriate clothing to avoid skin contact. |
| 8.2j | Hygiene measures: | DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift |
| | | and before eating, smoking, and using the toilet. Promptly remove any |
| | | clothing that becomes contaminated. Use appropriate skin cream to |
| | | prevent drying of skin. When using do not eat, drink, or smoke. Wash |
| | | promptly with soap and water if skin becomes contaminated |
| 8.2k | Thermal hazards: | None known under normal conditions of use. |
| 8.21 | Environmental exposure controls: | Not determined. |
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| | n 9: Physical and chemical properties | |
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| 9.1 | Information on basic physical and chemical properties: | • |
| 0.10 | Appearance (physical state, color, etc.): | Powder, dust. |
| 9.1a 9.1b | Odor: | No characteristic odor. |
| 9.1c | Odor threshold: | Not determined. |
| 9.1d | pH: | Not determined. Not determined. |
| 9.1e | Melting point/freezing point (°C): | Not determined. |
| 9.16 9.1f | Initial boiling point and boiling range: | Not determined. |
| 9.1g | Flash point (°C): | Not applicable. |
| 9.1g 9.1h | Evaporation rate: | Not applicable Not applicable |
| 9.1i | Flammability (solid, gas): | Not determined. |
| 9.1i 9.1j | Upper/lower flammability or explosive limits: | Not determined. Not determined. |
| 9.1j 9.1k | Vapor pressure: | |
| 9.1k 9.1l | Vapor density (Air =1): | Not applicable. Not applicable. |
| | Relative density: | Not determined. |
| 9.1m | Solubility(ies): | |
| 9.1n | | Insoluble in water; soluble in organic solvents. Not determined. |
| 9.10 | Partition coefficient (N-octanol/water): | |
| 9.1p | Auto-ignition temperature (°C): | Not determined. |
| 9.1q | Decomposition temperature (°C): | Not determined. |
| 9.1r | Viscosity: | Not determined. |
| 9.1s | Explosive properties: | Not determined. |
| 9.1t | Oxidizing properties: | Not determined. |
| 9.2 | Other information: | None. |
| 9.2a | Other physical or chemical parameters: | None. |
| | 10.0.1.111 | |
| | n 10: Stability and reactivity | |
| 10.1 | Reactivity: | No data available. |
| 10.2 | Chemical stability: | Stable under normal temperature conditions. |
| 10.3 | Possibility of hazardous reactions: | Hazardous polymerization: no data available. |
| 10.4 | Conditions to avoid: | To avoid product degradation, avoid exposure to high temperatures or |
| | | direct sunlight or light. |
| 10.5 | Incompatible materials: | No data available. |
| 10.6 | Hazardous decomposition products: | None under normal conditions. |
| | | |
| | n 11: Toxicological information | |
| | | |
| 11.1 | Information on toxicological effects: | |
| 11.1 11.1a | Information on toxicological effects: Name: | FAM-Leu-DAP |
| 11.1 11.1a 11.1b | Information on toxicological effects: Name: Acute toxicity: | Not determined. |
| 11.1 11.1a 11.1b 11.1c | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: | Not determined. Not determined. |
| 11.1a 11.1b 11.1c 11.1d | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: | Not determined. |
| 11.1a 11.1b 11.1c 11.1d 11.1d | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: | Not determined. Not determined. Not determined. Not determined. |
| 11.1a 11.1b 11.1c 11.1d 11.1d | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: | Not determined. Not determined. Not determined. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: | Not determined. Not determined. Not determined. Not determined. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: | Not determined. Not determined. Not determined. Not determined. Not determined. Not determined. |
| 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: | Not determined. |
| 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: | Not determined. |
| 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: | Not determined. |
| 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: | Not determined. |
| 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure | Not determined. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1i | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): | Not determined. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1l | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: | Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1j 11.1k | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): | Not determined. In high concentrations, dust may irritate throat and respiratory system |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1k 11.1i | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: | Not determined. In high concentrations, dust may irritate throat and respiratory system and cause coughing |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1l | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: | Not determined. In determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1l | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: | Not determined. In determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1l | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and | Not determined. In determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1k 11.1l 11.1m 11.1n | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: | Not determined. In determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1k 11.1l 11.1m 11.1n | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic | Not determined. In determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1h 11.1i 11.1i 11.1k 11.1l 11.1n 11.1n 11.1n | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: | Not determined. In determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1h 11.1i 11.1i 11.1k 11.1l 11.1n 11.1n 11.1n | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: Numerical measures of toxicity (such as acute | Not determined. In determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1h 11.1i 11.1,1 11.1m 11.1n 11.1n 11.1n 11.1n | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): | Not determined. In determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1i 11.1n 11.1n 11.1n 11.1n 11.1n 11.1n | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: | Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1h 11.1i 11.1h 11.1i 11.1h 11.1n 11.1n 11.1n 11.1n 11.1n 11.1n | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: | Not determined. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined. Not determined. Not determined. Not determined. Not applicable. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1h 11.1i 11.1k 11.1l 11.1n 11.1n 11.1n 11.1n 11.1c 11.1n 11.1s 11.1c | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: | Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined. Not determined. Not determined. Not applicable. Not applicable. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1k 11.1l 11.1n 11.1n 11.1n 11.1n 11.1c 11.1n 11.1c | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: | Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Not applicable. Not applicable. Not applicable. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1h 11.1i 11.1i 11.1m 11.1n 11.1n 11.1n 11.1n 11.1c 11.1s 11.1t 11.1t 11.1t 11.1t 11.1t 11.1t 11.1t | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): | Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Not applicable. Not applicable. Not classified. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1i 11.1s 11.1m 11.1n 11.1n 11.1o 11.1q 11.1r 11.1s | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research | Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Not applicable. Not applicable. Not applicable. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1f 11.1j 11.1h 11.1i 11.1m 11.1n 11.1n 11.1n 11.1o 11.1q 11.1r 11.1s | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by International Agency for Research on Cancer (IARC): | Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Not applicable. Not applicable. Not classified. Not classified. |
| 11.1 11.1a 11.1b 11.1c 11.1d 11.1e 11.1f 11.1g 11.1h 11.1i 11.1j 11.1k 11.1l 11.1n | Information on toxicological effects: Name: Acute toxicity: Skin corrosion/irritation: Serious eye damage/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Reproductive toxicity: STOT-single exposure: STOT-repeated exposure: Aspiration hazard: Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): Ingestion: Inhalation: Skin contact: Eye contact: Symptoms related to the physical, chemical and toxicological characteristics: Delayed and immediate effects as well as chronic effects from short and long term exposure: Numerical measures of toxicity (such as acute toxicity estimates): Interactive effects: Absence of specific data: Mixtures: Mixture vs. substance information: Classification by National Toxicity Program (NTP): Classification by OSHA 13: | Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. May cause discomfort if swallowed. In high concentrations, dust may irritate throat and respiratory system and cause coughing Dust may irritate skin. Spray and dust in the eyes may cause irritation. No specific symptoms noted. Not determined. Not determined. Not determined. Not applicable. Not applicable. Not applicable. Not classified. |

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| | n 12: Ecological information | | |
|---|---|--|--|
| 12.1 | Toxicity: | | |
| 12.1a | Name: | FAM-Leu-DAP. | |
| 12.1b | Ecotoxicity (aquatic and terrestrial, where available): | Not determined. | |
| 12.2 | Persistence and degradability: | There are no data on the degradability of this product. | |
| 12.3 | Bioaccumulative potential: | No data available on bioaccumulation. | |
| 12.4 | Mobility in soil: | No data available. | |
| 12.5 | Results of PBT and vPvB assessment: | Not determined. | |
| 12.6 | Other adverse effects: | No data available. | |
| Soction | 12. Dianocal considerations | | |
| 13.1 | 13: Disposal considerations Waste treatment methods: | When handling waste, consideration should be made to the safety | |
| 13.1 | waste treatment methods. | precautions applying to handling of the product. | |
| 13.1a | Description of waste residues and information on | Dispose of waste and residues in accordance with local authority | |
| | their safe handling and methods of disposal, | requirements. For the safety of persons conducting disposal, recycling | |
| | including the disposal of any contaminated | or reclamation activities, please refer to the information in Section 8 | |
| | packaging: | (exposure controls and personal protection) of the SDS. | |
| | | | |
| | 14: Transport information | | |
| 14.1 | UN number: | Not applicable. | |
| 14.2 | UN proper shipping name: | Not applicable. | |
| 14.3 | Transport hazard class(es): | Not applicable. | |
| 14.4 14.5 | Packing group: Environmental hazards: | Not applicable. | |
| 14.5a | Is it environmentally dangerous according to UN | No. | |
| 14.54 | Model Regulations (IMDG Code, ADR, RID, and | 140. | |
| | ADN)?: | | |
| 14.5b | Is it a marine pollutant according to the IMDG | No. | |
| | code?: | | |
| 14.6 | Special precautions for user: | None known. | |
| 14.7 | Transport in bulk according to Annex II of | Not applicable. | |
| | MARPOL and the IBC code: | | |
| 14.7a | Other information: | The product is not considered a dangerous good for transport. | |
| 14.7b | Classification for other modes of transport: | Contact supplier. | |
| Castian | 45. Domilatori information | | |
| 15.1 | n 15: Regulatory information Safety, health and environmental | | |
| 13.1 | regulations/legislation specific for the substance | · | |
| | or mixture: | | |
| 15.1a | Regional safety, health and environmental | None known. | |
| | regulations specific for the product in question: | | |
| 15.1b | USA SARA Components (such as 302/311/313): | Not listed. | |
| 15.1c | USA Massachusetts Right to Know: | Not listed. | |
| 15.1d | LICA Dannaulyania Dight to Known | Not listed. | |
| | USA Pennsylvania Right to Know: | | |
| 15.1e | USA New Jersey Right to Know: | Not listed. | |
| 15.1f | USA New Jersey Right to Know: USA California Prop. 65 Components: | | |
| 15.1f 15.1g | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: | Not listed. Not listed. | |
| 15.1f 15.1g 15.1h | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: | Not listed. Not listed Not listed. | |
| 15.1f 15.1g 15.1h 15.1i | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: | Not listed. Not listed. Not listed. Not listed. Not listed. | |
| 15.1f 15.1g 15.1h | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: | Not listed. Not listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous | |
| 15.1f 15.1g 15.1h 15.1i 15.1j | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: | Not listed. Not listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. | |
| 15.1f 15.1g 15.1h 15.1i 15.1j | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Not listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. | |
| 15.1f 15.1g 15.1h 15.1i 15.1j | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: | Not listed. Not listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of | |
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| 15.1f 15.1g 15.1h 15.1i 15.1j | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Not listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and | |
| 15.1f 15.1g 15.1h 15.1i 15.1j | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Not listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission | |
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| 15.1f 15.1g 15.1h 15.1i 15.1j | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Not listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and | |
| 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k 15.1l | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: | Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. | |
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| 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k 15.1l | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: Chemical safety assessment: | Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required. | |
| 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k 15.1l | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: Chemical safety assessment: Other regulatory information: | Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. | |
| 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k 15.1l 15.2 15.2a Section 16.1 16.1a 16.1b | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: Chemical safety assessment: Other regulatory information: 16: Other information: Date of revision: SDS number and revision: | Not listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required. None. | |
| 15.1f 15.1g 15.1h 15.1i 15.1j 15.1k 15.1l 15.2 15.2a Section 16.1 16.1a | USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: Chemical safety assessment: Other regulatory information: 16: Other information: Date of revision: | Not listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required. None. | |

FAM-Leu-DAP SDS; Doc# F17-6146-7-C; Effective: 05/26/2017; Supersedes: F17-6146-7-B; Page 6 of 6 16.1d Changes made to the previous version of the SDS: Reviewed and updated document control numbers. 16.1e Key/legend to abbreviations and acronyms used in ACGIH American Conference of Governmental Industrial Hygienists. ADN European Provisions concerning the International Carriage of the SDS: Dangerous Goods by Inland Waterway. ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road. ATE Acute Toxicity Estimate. BCF Bio Concentration Factor. CAS Chemical Abstracts Service. CLP Classification, Labelling and Packaging. CMR Carcinogen, Mutagen or Reproductive toxicant. COD Chemical Oxygen Demand. EC European Commission. EC50 Half maximal effective concentration. EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations. EINECS European Inventory of Existing Commercial chemical Substances. ELINCS European List of Notified Chemical Substances. EU European Union. GHS Globally Harmonized System of Classification and Labelling of Chemicals. H Statement GHS Hazard statement. IATA International Air Transport Association. IBC Intermediate Bulk Container. IC50 Half maximal inhibitory concentration. IMDG International Maritime Dangerous Goods. LC50 Median lethal concentration. LD50 Median lethal dose. LogPow logarithm of the octanol/water partition coefficient. MARPOL 73/78 International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. OEL Occupational Exposure Limit. OSHA Occupational Safety and Health Administration (USA). PBT Persistent, Bioaccumulative, and Toxic. PEL Permissible Exposure Limit. RID The Regulations concerning the International Carriage of Dangerous Goods by Rail. SADT Self-Accelerating Decomposition Temperature. SARA Superfund Amendments and Reauthorization Act. SCBA Self-Contained Breathing Apparatus. SDS Safety Data Sheet. STOT Specific Target Organ Toxicity. STOT-RE Specific Target Organ Toxicity - Repeated Exposure. STOT-SE Specific Target Organ Toxicity - Single Exposure.

statements not written out in full elsewhere:

DISCLAIMER: This information relates only to

Full text of hazard statements and/or precautionary

16.1f

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

UN United Nations.

USA United States of America.

vPvB very Persistent very bioaccumulative.

All statements were written out in full.

END OF SDS



SAFETY DATA SHEET (SDS) according to Regulation (EC) No. 830/2015 amending 1907/2006

| 1.1 | n 1: Identification of the substance/mixture and of the Product identifier: | | | |
|--|---|--|--|--|
| | | 10X Cellular Wash Buffer | | |
| 1.1a | Other means of identification: | | | |
| 1.1b | Alternative product name(s)/ synonyms: | 10X CWB, CWB, Cellular Wash Buffer | | |
| 1.1c | Product number/Catalog #(s): | 6164, 6165 | | |
| 1.1d | Internal identification: | 10X CWB, CWB, Cellular Wash Buffer | | |
| 1.2 | Relevant identified uses of the substance or | For research use only. Not for use in diagnostic procedures. | | |
| mixture and uses advised against: | | A huffered diluent for use in research laboratory techniques | | |
| 1.2a | Brief description of what the substance or mixture is | A buffered diluent for use in research laboratory techniques. | | |
| intended to do: 1.3 Details of the supplier of the SDS: | | | | |
| 1.3a | Name: | ImmunoChemistry Technologies, LLC (ICT) | | |
| 1.3b | Address: | 9401 James Avenue South, Suite 155 | | |
| 1.3c | City, State, Zip, Country | Bloomington, MN 55431-2500 USA | | |
| 1.3d | Phone number: | 1-800-829-3194 and 952-888-8788 | | |
| 1.3e | Fax number: | 952-888-8988 | | |
| 1.3f | Website: | www.immunochemistry.com | | |
| 1.3g | Email: | help@immunochemistry.com | | |
| 1.3h | Contact person at ICT: | Quality Documentation Department | | |
| 1.4 | Emergency telephone number: | ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; | | |
| | | ICT hours are 9 am-5 pm central time USA, Monday through Friday | | |
| | | (excluding holidays). Chemtrec 24-hour access within USA and | | |
| | | Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted. | | |
| | | | | |
| | n 2: Hazards identification | | | |
| 2.1 | Classification of the substance or mixture: | · | | |
| 2.1a | Product is a: | Mixture. | | |
| 2.1b | Classification according to (EC) No. 1272/2008 {CLP}: | Does not meet the criteria for classification. | | |
| 2.1c | The most important adverse physiochemical, human | Prolonged skin contact may cause redness and irritation. Refer to | | |
| | health, and environmental effects: | Sections 4, 9-12. | | |
| 2.2 | Label elements: | None. | | |
| 2.2a | GHS label elements, including precautionary | | | |
| 0.01- | statements: | O-114-in-140 40/ | | |
| 2.2b | Contains: | Contains ≤0.1% sodium azide. | | |
| 2.2c | Labeling in accordance with (EC) No. 1272/2008: | None | | |
| 2.2d | Hazard Pictograms (Hazard Symbols): Signal word: | None. | | |
| 2.2e 2.2f | Hazard statements: | None. | | |
| 2.2I 2.2g | | None. | | |
| 2.2 <u>y</u> 2.2h | Precautionary statements: Supplementary precaution statements: | None. | | |
| | | None. No additional information available. | | |
| 2.3 2.3a | Other hazards: Does the chemical meet the criteria for PBT or vPvB? | No additional information available. Not applicable. | | |
| 2.3b | Other hazards which do not result in classification: | Contains sodium azide (NaN ₃ , CAS #26628-22-8; EC #247-852-1) at | | |
| 2.00 | Other riazards which do not result in classification. | ≤0.1%, sodium chloride (NaCl, salt), and phosphates which are below | | |
| | | the threshold for hazard classification, but may cause redness and | | |
| | | irritation after prolonged exposure. | | |
| | | The same of the sa | | |
| Sectio | n 3: Composition/information on ingredients | | | |
| 3.1 | Substance: | Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2. | | |
| 3.2 | Mixture: | Item is a mixture. | | |
| J.= | The chemical identity and concentration or | | | |
| | concentration ranges of all ingredients which are | | | |
| | hazardous and are present above their cut-off levels: | | | |
| | 3.2a Chemical identity: | No ingredients identified for reporting in this section. | | |
| 3.2u | Other information on the mixture: | None. | | |
| | | | | |
| Sectio | n 4: First aid measures | | | |
| 4.1 | Description of first aid measures: | If concerned, get medical attention/advice and provide physician with | | |
| 7.1 | | | | |
| 7.1 | | SDS information. Wash contaminated clothing before re-use. Never give anything to an unconscious person. | | |

10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D; Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 2 of 6

| | 10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D; E | ffective: 2017-05-19; Supersedes: F17-6164-2-C; Page 2 of 6 | | | | |
|---|--|--|--|--|--|--|
| 4.1a | Inhalation: | Remove to fresh air and keep at rest in a comfortable position for | | | | |
| | | breathing. If not breathing, give artificial respiration. Rinse nose and | | | | |
| | | mouth with water. Get medical attention if any discomfort continues. | | | | |
| 4.1b | Skin contact: | Wash skin thoroughly with soap and water for several minutes; | | | | |
| 7.10 | OKIT COTILACI. | continue to rinse for at least 15 minutes. Remove any contaminated | | | | |
| | | | | | | |
| | | clothing and shoes and wash thoroughly before reuse. Get medical | | | | |
| | | attention if any discomfort continues. | | | | |
| 4.1c | Eye contact: | Promptly wash eyes with plenty of water while lifting the eyelids. Make | | | | |
| | , | sure to remove any contact lenses from the eyes before rinsing. | | | | |
| | | Continue to rinse for at least 15 minutes. Get medical attention if any | | | | |
| | | | | | | |
| | | discomfort continues. | | | | |
| 4.1d | Ingestion: | NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK | | | | |
| | | FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without | | | | |
| | | advice from poison control center or medical professional. Get medical | | | | |
| | | attention if any discomfort continues. | | | | |
| 4.0 | Martine and and assessment and affects that have | | | | | |
| 4.2 | Most important symptoms and effects, both acute | Contains sodium azide, sodium chloride, and phosphates which are | | | | |
| | and delayed: | below the threshold for hazard classification, but may cause redness | | | | |
| | | and irritation after prolonged exposure. | | | | |
| 4.2a | Inhalation: | May cause coughing or mild irritation. | | | | |
| 4.2b | Skin contact: | Prolonged skin contact may cause redness and mild irritation. | | | | |
| | | | | | | |
| 4.2c | Eye contact: | May cause temporary eye irritation. | | | | |
| 4.2d | Ingestion: | May cause discomfort if swallowed. | | | | |
| 4.3 | Indication of any immediate medical attention and | No specific first aid measures noted, but first aid may still be required | | | | |
| | special treatment needed: | in case of accidental exposure, inhalation, or ingestion of this product. | | | | |
| | Special meaning moderal | If in doubt, get medical attention promptly! | | | | |
| 4.0- | Nata ta alemaiaia a /finat na angan dana | | | | | |
| 4.3a | Notes to physician/first responder: | Treat symptomatically. Refer to Sections 5-8 for advice on personal | | | | |
| | | protective equipment. | | | | |
| | | | | | | |
| Section | n 5: Firefighting measures | | | | | |
| 5.1 | Extinguishing media: | This product is not flammable. Use fire-extinguishing media | | | | |
| 5.1 | Extinguishing media. | appropriate for the surrounding materials. | | | | |
| | 0 " 11 " " 11 " | | | | | |
| 5.1a | Suitable extinguishing media: | Water spray, foam, dry powder, or carbon dioxide. | | | | |
| 5.1b | Unsuitable extinguishing media: | None known. | | | | |
| 5.2 | Special hazards arising from the substance or | This product is not flammable. Product is not explosive. No dangerous | | | | |
| | | | | | | |
| | miytura: | reactions known under normal conditions of use | | | | |
| F 20 | mixture: | reactions known under normal conditions of use. | | | | |
| 5.2a | Hazardous combustion products: | None under normal conditions. | | | | |
| 5.2b | Hazardous combustion products: Unusual fire & explosion hazards: | None under normal conditions. No unusual fire or explosion hazards noted. | | | | |
| | Hazardous combustion products: | None under normal conditions. | | | | |
| 5.2b 5.2c | Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. | | | | |
| 5.2b | Hazardous combustion products: Unusual fire & explosion hazards: | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other | | | | |
| 5.2b 5.2c 5.3 | Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. | | | | |
| 5.2b 5.2c 5.3 5.3a | Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures: | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. No specific firefighting procedure given. | | | | |
| 5.2b 5.2c 5.3 | Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. | | | | |
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| 5.2b 5.2c 5.3 5.3a | Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures: Special protective equipment and precautions for | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. No specific firefighting procedure given. Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards | | | | |
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| 5.2b 5.2c 5.3 5.3a 5.3b Section 6.1 6.1a | Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures: Special protective equipment and precautions for firefighters: n 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. No specific firefighting procedure given. Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case | | | | |
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10X Cellular Wash Buffer SDS; Doc# F17-6164-2-D; Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 3 of 6 Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapour. 6.4 Refer to Sections 8 and 13 for additional information. Reference to other sections: Section 7: Handling and storage Precautions for safe handling: Do not handle until all safety precautions have been read and 7.1 understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition. 7.1a Avoid contact with halogenated hydrocarbons, strong acids, strong Prevent handling of incompatible substances or mixtures: oxidizers, and metals. 7.1b Advice on general occupational hygiene: Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices. 7.2 Conditions for safe storage, including any Store in cool place. Keep container tightly closed in a dry and wellincompatibilities: ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses. 7.3 Specific end use(s): For research use only. Not for use in diagnostic procedures. Section 8: Exposure controls/personal protection **Control parameters:** 8.1 8.1a Occupational exposure limits, such as chemical Not available. identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin. 8.1b Appropriate engineering controls: 8.1c Individual protection measures, such as personal Wear gloves. Wear protective goggles. protective equipment: 8.1d Safety symbols: 8.2 **Exposure controls:** 8.2a Process conditions: Provide eyewash station. 8.2b Engineering controls: Ensure that evewash stations and safety showers are proximal to the workstation location. 8.2c Ventilation controls: Provide adequate ventilation. 8.2d Reference to other sections: Refer to Section 5 for additional information. Wear approved chemical safety goggles where eye exposure is 8.2e Eye/face protection: reasonably probable or face shield if risk of splashing. 8.2f Skin protection: Wear apron or protective clothing in case of contact. Use suitable protective gloves if risk of skin contact. 8.2g Hand protection: 8.2h Respiratory equipment: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Wear appropriate clothing to avoid skin contact. 8.2i Other protection: 8.2j DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift Hygiene measures: and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated 8.2k Thermal hazards: None known under normal conditions of use. Environmental exposure controls: 8.21 Not determined. Section 9: Physical and chemical properties 9.1 Information on basic physical and chemical properties: 9.1a Appearance (physical state, color, etc.): Liquid; colorless. 9.1b No characteristic odor. Odor:

Not determined.

Odor threshold:

9.1c

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|-------------|--|---|--|--|--|
| 9.1d | pH: | 6.7-7.1 | | | |
| 9.1e | Melting point/freezing point (°C): | Not determined. | | | |
| 9.1f | Initial boiling point and boiling range: | <100°C @ 760 mm Hg. | | | |
| 9.1g | Flash point (°C): | Not applicable. | | | |
| 9.1h | Evaporation rate: | Not determined. | | | |
| 9.1i | Flammability (solid, gas): | Not applicable. | | | |
| 9.1j | Upper/lower flammability or explosive limits: | Not applicable. | | | |
| 9.1k | Vapor pressure: | Not determined. | | | |
| | | | | | |
| 9.11 | Vapor density (Air =1): | Not determined. | | | |
| 9.1m | Relative density: | Not determined. | | | |
| 9.1n | Solubility(ies): | Soluble in water. | | | |
| 9.10 | Partition coefficient (N-octanol/water): | Not determined. | | | |
| 9.1p | Auto-ignition temperature (°C): | Not determined. | | | |
| 9.1q | Decomposition temperature (°C): | Not determined. | | | |
| 9.1r | Viscosity: | Not determined. | | | |
| 9.1s | Explosive properties: | Not determined. | | | |
| | | Not determined. Not determined. | | | |
| 9.1t | Oxidizing properties: | | | | |
| 9.2 | Other information: | None. | | | |
| 9.2a | Other physical or chemical parameters: | None. | | | |
| | | | | | |
| Section | n 10: Stability and reactivity | | | | |
| 10.1 | Reactivity: | No data available. | | | |
| 10.2 | Chemical stability: | Stable under normal temperature conditions. | | | |
| 10.3 | Possibility of hazardous reactions: | Hazardous polymerization: will not polymerize. | | | |
| 10.4 | Conditions to avoid: | To avoid product degradation, avoid exposure to high temperatures or | | | |
| 10.4 | Conditions to avoid. | | | | |
| 40 F | Incompatible metaricle: | direct sunlight or light. | | | |
| 10.5 | Incompatible materials: | Avoid contact with halogenated hydrocarbons, strong acids, strong | | | |
| | | oxidizers, and metals. | | | |
| 10.6 | Hazardous decomposition products: | None under normal conditions. | | | |
| | | | | | |
| Section | n 11: Toxicological information | | | | |
| 11.1 | Information on toxicological effects: | | | | |
| 11.1a | Name: | 10X Cellular Wash Buffer | | | |
| 11.1b | Acute toxicity: | Not determined. | | | |
| 11.1c | Skin corrosion/irritation: | Not determined. | | | |
| 11.1d | | | | | |
| | Serious eye damage/irritation: | Not determined. | | | |
| 11.1e | Respiratory or skin sensitization: | Not determined. | | | |
| 11.1f | Germ cell mutagenicity: | Not determined. | | | |
| 11.1g | Carcinogenicity: | Not determined. | | | |
| 11.1h | Reproductive toxicity: | Not determined. | | | |
| 11.1i | STOT-single exposure: | Not determined. | | | |
| 11.1j | STOT-repeated exposure: | Not determined. | | | |
| 11.1k | Aspiration hazard: | Not determined. | | | |
| 11.11 | Information on the likely routes of exposure | May enter by skin and/or eye contact; inhalation of vapors/mist/dust. | | | |
| 11.11 | | ivial enter by skin and/or eye contact, initialation of vapors/mistroust. | | | |
| 44.4 | (inhalation, ingestion, skin and eye contact): | Many across discounted if a collection | | | |
| 11.1m | Ingestion: | May cause discomfort if swallowed. | | | |
| 11.1n | Inhalation: | In high concentrations, vapors may irritate throat and respiratory | | | |
| | | system and cause coughing. | | | |
| 11.1o | Skin contact: | Liquid may irritate skin and cause redness. | | | |
| 11.1p | Eye contact: | Spray and vapor in the eyes may cause irritation and smarting. | | | |
| 11.1q | Symptoms related to the physical, chemical and | No specific symptoms noted. | | | |
| • • • • • • | toxicological characteristics: | | | | |
| 11.1r | Delayed and immediate effects as well as chronic | Not determined. | | | |
| 1 1.11 | | Not determined. | | | |
| 111- | effects from short and long term exposure: | Not determined | | | |
| 11.1s | Numerical measures of toxicity (such as acute | Not determined. | | | |
| | toxicity estimates): | | | | |
| 11.1t | Interactive effects: | Not determined. | | | |
| 11.1u | Absence of specific data: | Not applicable. | | | |
| 11.1v | Mixtures: | Item is a mixture. | | | |
| 11.1w | Mixture vs. substance information: | See Section 3 for any substances in the mixture. | | | |
| 11.1x | Classification by National Toxicity Program (NTP): | Not classified. | | | |
| | Classification by International Agency for Research | Not classified. Not classified. | | | |
| 11.1y | | INUL CIASSIIIEU. | | | |
| 44.4 | on Cancer (IARC): | Note the Control | | | |
| 11.1z | Classification by OSHA 13: | Not classified. | | | |
| 11.1ab | Other information: | None. | | | |
| | | | | | |
| Section | n 12: Ecological information | | | | |
| 12.1 | Toxicity: | | | | |
| 12.1a | Name: | 10X Cellular Wash Buffer. | | | |
| 12.1b | Ecotoxicity (aquatic and terrestrial, where available): | No data available. | | | |
| | 12.1b Ecotoxicity (aquatic and terrestrial, where available): No data available. | | | | |

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| 12.2 | Persistence and degradability: | There are no data on the degradability of this product. | | |
|--|--|--|--|--|
| 12.3 | Bioaccumulative potential: | No data available on bioaccumulation. | | |
| 12.4 | Mobility in soil: | The product is soluble in water. | | |
| 12.5 | Results of PBT and vPvB assessment: | Not determined. | | |
| 12.6 | Other adverse effects: | The product contains a substance (sodium azide ≤0.1%) that may | | |
| | Gillor davoros oriostor | cause long term adverse effects in the aquatic environment. However, | | |
| | | at the concentrations present, this product does not need to be | | |
| | | classified as hazardous for the environment, and the effects are not | | |
| | | expected to be significant. | | |
| | | onpositor to bo significant. | | |
| | 1 13: Disposal considerations | | | |
| | | When handling waste, conisderation should be made to the safety precautions applying to handling of the product. | | |
| 13.1a | Description of waste residues and information on | Dispose of waste and residues in accordance with local authority | | |
| | their safe handling and methods of disposal, | requirements. For the safety of persons conducting disposal, recycling | | |
| | including the disposal of any contaminated | or reclamation activities, please refer to the information in Section 8 | | |
| | packaging: | (exposure controls and personal protection) of the SDS. | | |
| Section | 14: Transport information | | | |
| 14.1 | UN number: | Not applicable. | | |
| 14.2 | UN proper shipping name: | Not applicable. | | |
| 14.3 | Transport hazard class(es): | Not applicable. | | |
| 14.4 | Packing group: | Not applicable. | | |
| 14.5 | Environmental hazards: | The product contains a substance (sodium azide ≤0.1%) that may | | |
| | | cause long term adverse effects in the aquatic environment. However, | | |
| | | at the concentrations present, this product does not need to be | | |
| | | classified as hazardous for the environment, and the effects are not | | |
| | | expected to be significant. | | |
| 14.5a | Is it environmentally dangerous according to UN | No. | | |
| | Model Regulations (IMDG Code, ADR, RID, and | | | |
| | ADN)?: | | | |
| 14.5b | Is it a marine pollutant according to the IMDG | No. | | |
| | code?: | N | | |
| 14.6 | Special precautions for user: | None known. | | |
| 14.7 | Transport in bulk according to Annex II of | Not applicable. | | |
| 1170 | MARPOL and the IBC code: | The weed sat is not considered a demonstrate good for transport | | |
| 14.7a 14.7b | Other information: Classification for other modes of transport: | The product is not considered a dangerous good for transport. Contact supplier. | | |
| 14.70 | Classification for other modes of transport. | Contact supplier. | | |
| Section | n 15: Regulatory information | | | |
| 15.1 | Safety, health and environmental | | | |
| | | | | |
| | regulations/legislation specific for the substance | | | |
| | regulations/legislation specific for the substance or mixture: | | | |
| 15.1a | or mixture: Regional safety, health and environmental | | | |
| | or mixture: Regional safety, health and environmental regulations specific for the product in question: | | | |
| 15.1b | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): | . Sodium azide (CAS # 26628-22-8) is listed under 302, 304, 313. | | |
| 15.1b 15.1c | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: | Sodium azide (CAS # 26628-22-8) is listed. | | |
| 15.1b 15.1c 15.1d | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. | | |
| 15.1b 15.1c 15.1d 15.1e | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. | | |
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| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a | | |
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| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1s 15.1k | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required. | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1j | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1s 15.1k 15.1l | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: Chemical safety assessment: Other regulatory information: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required. | | |
| 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1k 15.1l | or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: | Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Sodium azide (CAS # 26628-22-8) is listed. Not listed. Not listed. Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Not required. | | |

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| 40.4- | | Effective: 2017-05-19; Supersedes: F17-6164-2-C; Page 6 of 6 | | |
|----------------------------------|--|---|--|--|
| 16.1a | Date of revision: | 2017-05-19 | | |
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| | | | | |
| 16.1b 16.1c 16.1d 16.1e | Supersedes SDS number and revision: Changes made to the previous version of the SDS: Key/legend to abbreviations and acronyms used in the SDS: | F17-6164-2-D F17-6164-2-C Reviewed and updated document control numbers. ACGIH American Conference of Governmental Industrial Hygienists. ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway. ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road. ATE Acute Toxicity Estimate. BCF Bio Concentration Factor. CAS Chemical Abstracts Service. CLP Classification, Labelling and Packaging. CMR Carcinogen, Mutagen or Reproductive toxicant. COD Chemical Oxygen Demand. EC European Commission. EC50 Half maximal effective concentration. EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations. EINECS European Inventory of Existing Commercial chemical Substances. ELINCS European List of Notified Chemical Substances. EU European Union. GHS Globally Harmonized System of Classification and Labelling of Chemicals. H Statement GHS Hazard statement. IATA International Air Transport Association. IBC Intermediate Bulk Container. IC50 Half maximal inhibitory concentration. IMDG International Maritime Dangerous Goods. LC50 Median lethal concentration. LD50 Median lethal concentration. LD50 Median lethal concentration. DD50 Half maximal Safety and Health Administration (USA). PBT Persistent, Bioaccumulative, and Toxic. PEL Permissible Exposure Limit. RID The Regulations concerning the International Carriage of Dangerous Goods by Rail. SADT Self-Accelerating Decomposition Temperature. SARA Superfund Amendments and Reauthorization Act. SCBA Self-Contained Breathing Apparatus. SDS Safety Data Sheet. STOT-RE Specific Target Organ Toxicity. STOT-RE Specific Target Organ Toxicity. | | |
| | | STOT-SE Specific Target Organ Toxicity - Single Exposure. | | |
| | | UN United Nations. | | |
| | | USA United States of America. | | |
| | | vPvB very Persistent very bioaccumulative. | | |
| 16.1f | Full text of hazard statements and/or precautionary | All statements were written out in full. | | |
| | statements not written out in full elsewhere: | | | |
| DISCLA | | fic material designated and may not be valid for such material used | | |

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

END OF SDS



SAFETY DATA SHEET (SDS) according to Regulation (EC) No. 830/2015 amending 1907/2006

| 1.1a | Product identifier: Other means of identification: | | | | |
|--------------------|--|---|---|--|--|
| | | | Fivetive Fiv | | |
| 1.1b 1.1c | Alternative product name(s)/ sy | nonyms: | Fixative, Fix 536, 636 | | |
| 1.1d | Product number/Catalog #(s): Internal identification: | | Fixative, Fix | | |
| 1.10 1.2 | Relevant identified uses of the substance or mixture and uses advised against: | | For research use only. Not for use in diagnostic procedures. | | |
| 1.2a | Brief description of what the substance or intended to do: | mixture is | Laboratory reagent to preserve cells. | | |
| 1.3 | Details of the supplier of the SDS: | | | | |
| 1.3a | Name: | | ImmunoChemistry Technologies, LLC (ICT) | | |
| 1.3b | Address: | | 9401 James Avenue South, Suite 155 | | |
| 1.3c | City, State, Zip, Country | | Bloomington, MN 55431-2500 USA | | |
| 1.3d | Phone number: | | 1-800-829-3194 and 952-888-8788 | | |
| 1.3e | Fax number: | | 952-888-8988 | | |
| 1.3f | Website: | | www.immunochemistry.com | | |
| 1.3g | Email: | | help@immunochemistry.com | | |
| 1.3h 1.4 | Contact person at ICT: Emergency telephone number: | | Quality Documentation Department ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted. | | |
| Sectio | on 2: Hazards identification | | | | |
| 2.1 | Classification of the substance or | | | | |
| 2.10 | mixture: Product is a: | Mixture. | | | |
| 2.1a 2.1b | Classification according to (EC) No. | | Liquids, (Category 4) (USA Only). | | |
| | H312 Acut H315 Skin H319 Eye H317 Skin H341 Gerr H350 Card H371 Spec | | toxicity, Oral (Category 4). toxicity, Dermal (Category 4). rritation, (Category 2). ritation, (Category 2). ensitisation (Category 1). cell mutagenicity (Category 2). nogenicity (Category 1B). ric Target Organ Toxicity - Single Exposure (Category 2). ric Target Organ Toxicity - Single Exposure (Category 3) - Respiratory Tract. | | |
| 2.1c | The most important adverse physiochemical, human health, and environmental effects: | | ct with liquid may cause immediate harm to skin, mouth, and eyes. Refer to | | |
| 2.2 | Label elements: | | | | |
| 2.2a | GHS label elements, including precautionary statements: | | | | |
| 2.2b | Contains: | Formaldeby | de <10%; and Methanol <5%. | | |
| 2.2c | Labeling in accordance with (EC) No. 1272/2008: | · | de C1070, and Methanol C070. | | |
| 2.2d | Hazard Pictograms (Hazard Symbols): | GHS07 Exclamation mark. GHS08 Health hazard. | | | |
| 2.2e | Signal word: | Danger. | | | |
| 2.2f | Hazard statements: | H227 Combustible liquids. H302 Harmful if swallowed. H312 Harmful if in contact with skin. H319 Causes serious eye irritation. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H350 May cause cancer. H341 Suspected of causing genetic defects. H371 May cause damage to organs. H335 May cause respiratory irritation. | | | |
| 2.2g | Precautionary statements: | P201 Obtain P280 Wear | n special instructions before use. protective gloves/ protective clothing/ eye protection/ face protection. 2 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if | | |

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| | Fixative SD | 75; DOC#F 17-53 | | | es: F17-536-2-C; Page 2 of 8 erned: Get medical advice/ attention. | |
|-----------------|--|--------------------|------------------------------------|--|--|--|
| | | | | | ash occurs: Get medical advice/ attention. | |
| 2.2h | Supplementary precaution s | tatements: | | | when using this product. | |
| | Cappionionially procaution of | tatomorno. | | breathing mist/vapors | | |
| | | | | minated work clothing should not be allowed out of the workplace. | | |
| | | | | poison center or doct | | |
| | | | P321 Specifi | | | |
| | | | P322 Specifi | ic measures (see on t | this label). | |
| | | | P330 Rinse | mouth. | · | |
| | | | P362 Take of | off contaminated cloth | ning. | |
| | | | P363 Wash | contaminated clothing | g before reuse. | |
| | P302+P352 | | | | ners in accordance with local regulations. | |
| | | | | | plenty of soap and water. | |
| | | | | | ictim to fresh air and keep at rest in a position | |
| | | | | e for breathing. | | |
| | | | | | se cautiously with water for several minutes. Remove | |
| 2.2 | Other beards. | | contact lense | | sy to do. Continue rinsing. | |
| 2.3 2.3a | Other hazards: Does the chemical meet the | oritorio for DDT | or vDvD2 | No additional information available. | | |
| 2.3b | Other hazards which do not | | | Not applicable. Not known. | | |
| 2.30 | Other nazards which do not | result iii Gassiii | ication. | NOU KHOWH. | | |
| Section | n 3: Composition/informatio | n on ingredier | nte | | | |
| 3.1 | Substance: | on myrealer | | Item is a mixture th | nerefore Section 3.1 is not applicable; see Section 3.2. | |
| 3.2 | Mixture: | | | Item is a mixture. | istation of the applicable, see decitor 6.2. | |
| | The chemical identity and co | oncentration or | concentration | | | |
| | ranges of all ingredients whi | | | | | |
| | present above their cut-off le | evels: | | | | |
| | 3.2a Chemical identity: | | | Formaldehyde | | |
| | 3.2b Common name, synony | yms, etc.: | | CH ₂ O; Index# 605- | -001-00-5 | |
| | 3.2c CAS number and | | | 3.2e % | 3.2f Classification according to (EC) No. 1272/2008 | |
| | other unique identifiers: | | number: | Concentration: | <u>{CLP}:</u> | |
| | 50-00-0 | 200-0 | 001-8 | <10% | H301 Toxic if swallowed. H311 Toxic in contact with | |
| | | | | | skin. H331 Toxic if inhaled. Acute Tox. 3. | |
| | | | | | H314 Causes severe skin burns and eye damage. | |
| | | | | | Skin Corr. 1B. | |
| | | | | | H318 Causes serious eye damage. Eye Dam. 1. | |
| | | | | | H317 May cause an allergic skin reaction. Skin Sens. | |
| | | | | | 1. | |
| | | | | | H341 Suspected of causing genetic defects. Muta. 2. | |
| | | | | | H350 May cause cancer. Carc. 1B. H335 May cause respiratory irritation. STOT SE 3. | |
| | | | | | H333 May cause respiratory lititation. STOT SE 3. | |
| 3.2g | Other ingredient: | | | | | |
| 0.29 | 3.2h Chemical identity: | | | Methanol | | |
| | 3.2i Common name, synony | ms. etc.: | | CH ₄ O; Index # 603 | 3-001-00-X | |
| | 3.2j CAS number and | | | 3.21 % | 3.2m Classification according to (EC) No. 1272/2008 | |
| | other unique identifiers: | 3.2k EC | number: | Concentration: | {CLP}: | |
| | 67-56-1 | | 659-6 | <5% | H225 Highly flammable liquid and vapor. Flam. Liq. 2. | |
| | | | | | H301 Toxic if swallowed. H311 Toxic in contact with | |
| | | | | | skin. H331 Toxic if inhaled. Acute Tox. 3. | |
| | | | | | H370 Causes damage to organs. STOT SE 1. | |
| | | | | | | |
| | n 4: First aid measures | | | | | |
| 4.1 | Description of first aid mea | asures: | | | sician and provide SDS information. If exposed or | |
| | | | | concerned, get medical attention/advice. Wash contaminated clothing | | |
| | | | | before re-use. Never give anything to an unconscious person. First aid | | |
| | | | | | wear gloves/skin protection to avoid contact with | |
| 4.4 | lab platica | | | product. | | |
| 4.1a | Inhalation: | | | Remove to fresh air and keep at rest in a comfortable position for | | |
| | | | | breathing. If not breathing, give artificial respiration. Rinse nose and mouth | | |
| 1 11- | Olio contest. | | with water. Get medical attention. | | | |
| 4.1b | Skin contact: | | | Remove affected clothing/shoes and immediately wash all exposed skin with soon and water for at least 15 minutes. Take victim immediately to | | |
| | | | | with soap and water for at least 15 minutes. Take victim immediately to hospital. Get medical attention. | | |
| 4.1c | Eye contact: | | | | ion immediately. Promptly wash eyes with plenty of | |
| 4.10 | Lye contact. | | | | he eyelids. Make sure to remove any contact lenses | |
| | | | | | re rinsing. Continue to rinse for at least 15 minutes. | |
| 4.1d | Ingestion: | | | | ion immediately and if any discomfort continues. NEVER | |
| IU | mgesuon. | | | | ISCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse | |
| | | | | | Do not induce vomiting without advice from poison | |
| | | | | | nedical professional. | |
| 4.2 | Most important symptoms | and effects. h | oth acute | | ons 2 and 11 for most important known symptoms and | |
| | | DITOGO, N | | effects. | Januar | |
| 1 | and delayed: | | | епестs. May cause respiratory irritation. | | |
| 4.2a | Inhalation: | | | iway cause respiratory irritation. | | |

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| 4.2b | Skin contact: | Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. |
| 4.2c | Eye contact: | Causes serious eye irritation. |
| 4.2d 4.3 | Ingestion: Indication of any immediate medical attention and special treatment needed: | Harmful if swallowed. Get medical attention immediately. |
| 4.3a | Notes to physician/first responder: | Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment. |
| Sactio | n E. Eirofighting moscures | |
| 5.1 | n 5: Firefighting measures Extinguishing media: | Use fire-extinguishing media appropriate for the surrounding materials. |
| 5.1a | Suitable extinguishing media: | Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. |
| 5.1b | Unsuitable extinguishing media: | None known. |
| 5.2 | Special hazards arising from the substance or mixture: | |
| 5.2a | Hazardous combustion products: | None under normal conditions. |
| 5.2b 5.2c | Unusual fire & explosion hazards: Protective measures in fire: | No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Do not |
| 5.20 | Protective measures in fire. | enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (see Section 8). |
| 5.3 | Advice for firefighters: | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| 5.3a | Special firefighting procedures: | Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment. |
| 5.3b | Special protective equipment and precautions for firefighters: | Wear full protective clothing, including self-contained breathing apparatus, if necessary. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| Section | on 6: Accidental release measures | |
| 6.1 | Personal precautions, protective equipment, and emergency procedures: | Use protective equipment appropriate for surrounding materials and to avoid contamination. |
| 6.1a | General release measures: | No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel for large spills. |
| 6.1b | Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: | Wear suitable protective clothing/gloves/eye/face protection to prevent any contamination of skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel for large spills or if concerned. |
| 6.1c | Advice for emergency responders; personal precautions, protective equipment and emergency procedures: | Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). |
| 6.2 | Environmental precautions: | Do not allow to enter drains, surface, and ground water, sewers, or watercourses. |
| 6.3 | Methods and materials for containment and clean up: | Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable container for disposal in accordance with local waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapor |
| 6.4 | Reference to other sections: | Refer to Sections 8 and 13 for additional information. |
| Section | on 7: Handling and storage | |
| 7.1 | Precautions for safe handling: | Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition |
| 7.1a | Prevent handling of incompatible substances or mixtures: | ignition. Avoid contact with strong acids and strong oxidizing substances. Incompatible with strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline. |
| 7.1b | Advice on general occupational hygiene: | Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices. |
| 7.2 | Conditions for safe storage, including any incompatibilities: | Refer to product label for storage. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

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| | | Avoid spills and release into the environment; keep away from |
| 7.3 | Specific end use(s): | watercourses. For research use only. Not for use in diagnostic procedures. |
| 7.5 | opecinic end use(s). | 1 of research use only. Not for use in diagnostic procedures. |
| Section | 8: Exposure controls/personal protection | |
| 8.1 | Control parameters: | · |
| 8.1a | Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin. | Methanol: EH40 2005 UK Workplace Exposure Limits STEL: 333 mg/m³ 15 minutes STEL: 250 ppm 15 minutes TWA: 266 mg/m³ 8 hours TWA: 200 ppm 8 hours USA ACGIH Threshold Limit Values TWA- 200 ppm 8 hours TWA- 262 mg/m³ 8 hours STEL- 250 ppm 15 minutes STEL- 328 mg/m³ 15 minutes US NIOSH Recommended Exposure Limits TWA- 200 ppm 10 hours TWA- 200 ppm 15 minutes STEL- 325 mg/m³ 15 minutes STEL- 325 mg/m³ 15 minutes STEL- 30 ppm 8 hours TWA- 260 mg/m³ 8 hours Formaldehyde EH40 2005 UK Workplace Exposure Limits STEL: 2 ppm 15 minutes STEL: 2 ppm 15 minutes TWA: 2 ppm 8 hours TWA: 2 ppm 8 hours TWA: 2.5 mg/m³ 8 hours USA ACGIH Threshold Limit Values C: 0.300000 ppm OSHA PEL Subpart Z Standard - OSHA Specifically Regulated Chemicals/Carcinogens |
| 8.1b 8.1c | Appropriate engineering controls: Individual protection measures, such as personal | TWA 0.750000 ppm 8 hours STEL - 2.000000 ppm 15 minutes US NIOSH Recommended Exposure Limits TWA: 0.016000 ppm 10 hours CEIL - 0.100000 ppm 15 minutes . Wear gloves, lab coat, and protective goggles. |
| | protective equipment: | greates, and protesting greggies. |
| 8.1d | Safety symbols: Exposure controls: | |
| 8.2a | Process conditions: | Provide eyewash station. |
| 8.2b | Engineering controls: | Ensure that eyewash stations and safety showers are proximal to the workstation location. |
| 8.2c | Ventilation controls: | Provide adquate ventilation. |
| 8.2d 8.2e | Reference to other sections: Eye/face protection: | Refer to Section 5 for additional information. Tightly fitting safety goggles. Use equipment for eye/face protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). |
| 8.2f | Skin protection: | Wear apron or protective clothing in case of contact. |
| 8.2g | Hand protection: | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only |

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| | | and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of the customers' anticipated uses of the product. It should not be construed as offering an approval for any specific use |
| 8.2h | Respiratory equipment: | scenario. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK |
| | | (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air |
| | | respirator. Use respirators and components tested and approved under |
| 8.2i | Other protection: | appropriate government standards such as NIOSH (US) or CEN (EU). Wear appropriate clothing to prevent any possibility of skin contact. |
| 8.2j | Hygiene measures: | DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift |
| , | 7,5 | and before eating, smoking, and using the toilet. Promptly remove any |
| | | clothing that becomes contaminated. Use appropriate skin cream to |
| | | prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated. |
| 8.2k | Thermal hazards: | None known. |
| 8.21 | Environmental exposure controls: | Not determined. |
| | | |
| | 9: Physical and chemical properties | |
| 9.1 | Information on basic physical and chemical properties: | · |
| 9.1a | Appearance (physical state, color, etc.): | Liquid; colorless; clear. |
| 9.1b 9.1c | Odor: Odor threshold: | Pungent Not determined. |
| 9.1d | pH: | 6.8-7.4 |
| 9.1e | Melting point/freezing point (°C): | Not determined. |
| 9.1f | Initial boiling point and boiling range: | Not determined. |
| 9.1g | Flash point (°C): | 85°C estimated value based on supplier data. |
| 9.1h 9.1i | Evaporation rate: Flammability (solid, gas): | Not determined. Not determined. |
| 9.1j | Upper/lower flammability or explosive limits: | Upper: 70%(V) estimated value. |
| o, | opposition indimination of outproduct infinite | Lower: 7%(V) estimated value. |
| 9.1k | Vapor pressure: | 53 hPa at 39°C estimated value. |
| 9.11 | Vapor density (Air =1): | Not applicable. |
| 9.1m 9.1n | Relative density: Solubility(ies): | Not determined. |
| 9.10 | Partition coefficient (N-octanol/water): | Readily miscible in water. Not determined. |
| 9.10 9.1p | Auto-ignition temperature (°C): | Not determined. |
| 9.1q | Decomposition temperature (°C): | Not determined. |
| 9.1r | Viscosity: | Not determined. |
| 9.1s | Explosive properties: | Not determined. |
| 9.1t 9.2 | Oxidizing properties: Other information: | Not determined. None. |
| 9.2a | Other physical or chemical parameters: | None. |
| | 10: Stability and reactivity | 110.10. |
| 10.1 | Reactivity: | Strong acids. Strong oxidizing substances. |
| 10.2 | Chemical stability: | Stable under normal temperature conditions. |
| 10.3 | Possibility of hazardous reactions: | Not determined. |
| 10.4 | Conditions to avoid: | Heat, flames, and sparks. Avoid exposure to high temperatures or direct sunlight. |
| 10.5 | Incompatible materials: | Strong bases, strong acids, strong oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, |
| 10.6 | Hazardous decomposition products: | phenol, aniline. None under normal conditions. High temperatures generate: |
| | | Vapors/gases/fumes of: Formaldehyde. |
| Section | 11: Toxicological information | |
| 11.1 | Information on toxicological effects: | |
| 11.1a | Name: | |
| 11.1b | Acute toxicity: | Formaldehyde: |
| | | LD50 Dermal Rabbit 270 mg/kg. |
| | | LD50 Oral Rat 100 mg/kg. Methanol: |
| | | LD50 Dermal Rabbit 15800 mg/kg. |
| | | LD50 Oral Rat 5600 mg/kg. |
| 11.1c | Skin corrosion/irritation: | Formaldehyde: Not determined. Methanol: Not determined. |
| 11.1d | Serious eye damage/irritation: | Formaldehyde: Not determined. Methanol: Not determined. |
| 11.1e 11.1f | Respiratory or skin sensitization: Germ cell mutagenicity: | Formaldehyde: Not determined. Methanol: Not determined. Formaldehyde: Not determined. Methanol: Not determined. |
| 11.11g | Carcinogenicity: | Formaldehyde: |
| 9 | Sa. Sinogoniony. | IARC: 1 - Group 1: Carcinogenic to humans. |
| | | NTP - Known to be a human Carcinogen. |
| | | NIOSH - List of Known Carcinogens. |

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| | | ACGIH - A2 (Suspected Human Carcinogen). |
| 11.1h | Reproductive toxicity: | Formaldehyde: Not determined. Methanol: Not determined. |
| 11.1i | STOT-single exposure: | Formaldehyde: Not determined. Methanol: Not determined. |
| 11.1j | STOT-repeated exposure: | Formaldehyde: Category 3, Respiratory Tract Irritation. Methanol: Not |
| , | ' ' | determined. |
| 11.1k | Aspiration hazard: | Formaldehyde: Not determined. Methanol: Not determined. |
| 11.11 | Information on the likely routes of exposure (inhalation, | |
| 11.11 | | May enter by skin and/or eye contact; inhalation of vapors/mist/dust. |
| | ingestion, skin and eye contact): | |
| 11.1m | Ingestion: | Harmful if swallowed. |
| 11.1n | Inhalation: | May cause respiratory irritation. |
| 11.1o | Skin contact: | Harmful in contact with skin. Causes skin irritation. May cause an allergic |
| | | skin reaction. |
| 11.1p | Eye contact: | Causes serious eye irritation. |
| 11.1q | Symptoms related to the physical, chemical and | May cause sensitization by skin contact. |
| 11.14 | | iviay cause sensitization by skin contact. |
| | toxicological characteristics: | |
| 11.1r | Delayed and immediate effects as well as chronic | May cause cancer. Suspected of causing genetic defects. May cause |
| | effects from short and long term exposure: | damage to organs. |
| 11.1s | Numerical measures of toxicity (such as acute toxicity | Not determined. |
| | estimates): | |
| 11.1t | Interactive effects: | Not determined. |
| 11.1u | Absence of specific data: | Not applicable. |
| 11.1u | Mixtures: | Item is a mixture. |
| | | |
| 11.1w | Mixture vs. substance information: | See Section 3 for any substances in the mixture. |
| 11.1x | Classification by National Toxicity Program (NTP): | Formaldehyde is known to be a human carcinogen. Methanol is not listed. |
| 11.1y | Classification by International Agency for Research on | Formaldehyde is classified in Group 1: Carcinogenic to Humans. Methanol |
| | Cancer (IARC): | is not listed. |
| 11.1z | Classification by OSHA 13: | Formaldehyde is not listed. Methanol is not listed. |
| 11.1ab | Other information: | Because of the small quantity of product, the health hazard is small. |
| 11.140 | Other information. | Because of the small quantity of product, the health hazard is small. |
| 0 1 | 40. Feelenteel to former them | |
| | 12: Ecological information | |
| 12.1 | Toxicity: | Mixture not tested. |
| 12.1a | Name: | Fixative. |
| 12.1b | Ecotoxicity (aquatic and terrestrial, where available): | No data available. |
| 12.2 | Persistence and degradability: | No data available. |
| 12.3 | Bioaccumulative potential: | No data available. |
| 12.4 | Mobility in soil: | No data available. |
| | | |
| 12.5 | Results of PBT and vPvB assessment: | Not determined. |
| | | |
| 12.6 | Other adverse effects: | Not determined. |
| | | |
| 12.6 | | Not determined. |
| 12.6 | Other adverse effects: | Not determined. |
| 12.6 Section | Other adverse effects: 13: Disposal considerations | Not determined. When handling waste, consideration should be made to the safety |
| 12.6 Section 13.1 | Other adverse effects: 13: Disposal considerations Waste treatment methods: | Not determined. When handling waste, consideration should be made to the safety precautions applying to handling of the product. |
| 12.6 Section | Other adverse effects: 13: Disposal considerations Waste treatment methods: Description of waste residues and information on their | When handling waste, consideration should be made to the safety precautions applying to handling of the product. Dispose of waste and residues in accordance with local authority |
| 12.6 Section 13.1 | Other adverse effects: 13: Disposal considerations Waste treatment methods: Description of waste residues and information on their safe handling and methods of disposal, including the | When handling waste, consideration should be made to the safety precautions applying to handling of the product. Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or |
| 12.6 Section 13.1 | Other adverse effects: 13: Disposal considerations Waste treatment methods: Description of waste residues and information on their | When handling waste, consideration should be made to the safety precautions applying to handling of the product. Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 |
| 12.6 Section 13.1 | Other adverse effects: 13: Disposal considerations Waste treatment methods: Description of waste residues and information on their safe handling and methods of disposal, including the | When handling waste, consideration should be made to the safety precautions applying to handling of the product. Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or |
| 12.6 Section 13.1 13.1a | Other adverse effects: 13: Disposal considerations Waste treatment methods: Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: | When handling waste, consideration should be made to the safety precautions applying to handling of the product. Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 |
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| 12.6 Section 13.1 13.1a Section 14.1 14.2 14.3 14.4 14.5 14.5a 14.5b 14.6 14.7 14.7a 14.7b Section 15.1 15.1a | Other adverse effects: 13: Disposal considerations Waste treatment methods: Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: 14: Transport information UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmental hazards: Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: Is it a marine pollutant according to the IMDG code?: Special precautions for user: Transport in bulk according to Annex II of MARPOL and the IBC code: Other information: Classification for other modes of transport: 15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): | When handling waste, consideration should be made to the safety precautions applying to handling of the product. Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS. Not applicable. Not applicable. Not applicable. Not applicable. The product is not covered by these regulations. No. None known. Not applicable. The product is not considered a dangerous good for transport. Contact supplier. USDA OSHA - Formaldehyde Standard Subpart Z 1910.1048. Formaldehyde is listed on 302, 304, 313, and RCRA code U122. Methanol is listed on 313 and RCRA code U122. |
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| 15.4~ | | | e: 5/12/17; Supersedes: F17-536-2-C; Page 7 of 8 |
|-------------------|--|---|---|
| 15.1g 15.1h | EU Regulation 1907/2006 (REAC Annex XIV substances subject to | | Formaldehyde is listed. |
| 15.1ii | Substances of very high concern | | Fixative is not listed. |
| 15.1j | Approved code of practice: | • | Classification and labeling of substances and preparations dangerous for |
| , | 7 Approved sode or praemos. | | supply. Safety data sheets for substances and preparations. |
| 15.1k | Guidance notes: | | Workplace exposure limits EH40. |
| 15.11 | EU legislation references: | | (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. |
| 15.2 15.2a | Chemical safety assessment: Other regulatory information: | | Not required. None. |
| Section | 16: Other information | | |
| 16.1 | Other information: | | |
| 16.1a | Date of revision: | 12-May-2017 | |
| 16.1b | SDS number and revision: | F17-536-2-D | |
| 16.1c | Supersedes SDS number and | F17-536-2-C | |
| 40.4.1 | revision: | De la colonia de la lata | I I I I I I I I I I I I I I I I I I I |
| 16.1d | Changes made to the previous version of the SDS: | deleted redundant info | d document control numbers. Minor changes were made (corrected typos, |
| 16.1e | Key/legend to abbreviations | | ference of Governmental Industrial Hygienists. |
| . 5. 10 | and acronyms used in the | | ions concerning the International Carriage of Dangerous Goods by Inland |
| | SDS: | Waterway. | |
| | | | greement concerning the International Carriage of Dangerous Goods by |
| | | Road. | ation at a |
| | | ATE Acute Toxicity Es BCF Bio Concentratio | |
| | | CAS Chemical Abstra | |
| | | | belling and Packaging. |
| | | | tagen or Reproductive toxicant. |
| | | COD Chemical Oxyge | |
| | | EC European Commis | |
| | | EC50 Half maximal ef | fective concentration. ining the list of workplace exposure limits for use with the Control of |
| | | | is to Health Regulations. |
| | | | ventory of Existing Commercial chemical Substances. |
| | | ELINCS European Lis | t of Notified Chemical Substances. |
| | | EU European Union. | |
| | | H Statement GHS Haz | nized System of Classification and Labelling of Chemicals. |
| | | | Transport Association. |
| | | IBC Intermediate Bulk | · |
| | | IC50 Half maximal inh | |
| | | | aritime Dangerous Goods. |
| | | LC50 Median lethal co | |
| | | LD50 Median lethal do | ose. he octanol/water partition coefficient. |
| | | | ne octanol/water partition coemcient. lational Convention for the Prevention of Pollution From Ships, 1973 as |
| | | modified by the Protoc | |
| | | OEL Occupational Exp | |
| | | | Safety and Health Administration (USA). |
| | | PEL Persistent, Bioac | cumulative, and Toxic. |
| | | | concerning the International Carriage of Dangerous Goods by Rail. |
| | | | ng Decomposition Temperature. |
| | | SARA Superfund Ame | endments and Reauthorization Act. |
| | | SCBA Self-Contained | |
| | | SDS Safety Data She | |
| | | STOT-RE Specific Target | Organ Toxicity. rget Organ Toxicity - Repeated Exposure. |
| | | | rget Organ Toxicity - Repeated Exposure. rget Organ Toxicity - Single Exposure. |
| | | UN United Nations. | got organ roziony omigio Exposuro. |
| | | USA United States of | America. |
| | | vPvB very Persistent v | very bioaccumulative. |
| 16.1f | Full text of hazard statements | All statements were w | ritten out in full. |
| | and/or precautionary | | |
| | statements not written out in full elsewhere: | | |
| | Tull CISCWITCIC. | | |

Fixative SDS; Doc#F17-536-2-D; Effective: 5/12/17; Supersedes: F17-536-2-C; Page 8 of 8

| DISCLAIMER: | This information relates only to the specific material designated and may not be valid for | |
|-------------|--|--|
| | such material used in combination with any other materials or in any process. Such | |
| | information is, to the best of the company's knowledge and belief, accurate and reliable as | |
| | of the date indicated. However, no warranty guarantee or representation is made to its | |
| | accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to | |
| | the suitability of such information for his own particular use. | |
| END OF SDS | | |



SAFETY DATA SHEET (SDS) according to Regulation (EC) No. 830/2015 amending 1907/2006

| 1.1 | on 1: Identification of the substance/mixture and of the Product identifier: | Propidium Iodide |
|--------------|--|--|
| 1.1a | Other means of identification: | 1 Topididiti Todide |
| | | Promidium ladida DI |
| 1.1b 1.1c | Alternative product name(s)/ synonyms: Product number/Catalog #(s): | Propidium Iodide, PI 557, 638 |
| 1.10 1.1d | Internal identification: | Propidium lodide; PI |
| 1.1u 1.2 | Relevant identified uses of the substance or | For research use only. Not for use in diagnostic procedures. |
| 1.2 | mixture and uses advised against: | For research use only. Not for use in diagnostic procedures. |
| 1.2a | Brief description of what the substance or mixture is | Intercalating fluorescent red reagent that is primarily used to identify |
| 1.Za | intended to do: | necrotic and apoptotic cells. |
| 1.3 | Details of the supplier of the SDS: | necrotic and apoptotic cells. |
| 1.3a | Name: | ImmunoChemistry Technologies, LLC (ICT) |
| 1.3b | Address: | 9401 James Avenue South, Suite 155 |
| 1.3c | City, State, Zip, Country | Bloomington, MN 55431-2500 USA |
| 1.3d | Phone number: | 1-800-829-3194 and 952-888-8788 |
| 1.3e | Fax number: | 952-888-8988 |
| 1.3f | Website: | www.immunochemistry.com |
| 1.3g | Email: | help@immunochemistry.com |
| 1.3h | Contact person at ICT: | Quality Documentation Department |
| 1.4 | Emergency telephone number: | ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; |
| 1 | Linergency telephone number. | ICT hours are 9 am-5 pm central time USA, Monday through Friday |
| | | (excluding holidays). Chemtrec 24-hour access within USA and |
| | | Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted. |
| | | Canada. 1-000-424-3300 01 +1 703-327-3007. Collect calls accepted. |
| Section | on 2: Hazards identification | |
| 2.1 | Classification of the substance or mixture: | |
| 2.1a | Product is a: | Mixture. |
| 2.1b | Classification according to (EC) No. 1272/2008 | Does not meet the criteria for classification. |
| | {CLP}: | |
| 2.1c | The most important adverse physiochemical, human | Refer to Sections 9-12. |
| | health, and environmental effects: | |
| 2.2 | Label elements: | None. |
| 2.2a | GHS label elements, including precautionary | |
| | statements: | |
| 2.2b | Contains: | |
| 2.2c | Labeling in accordance with (EC) No. 1272/2008: | None. |
| 2.2d | Hazard Pictograms (Hazard Symbols): | None. |
| 2.2e | Signal word: | None. |
| 2.2f | Hazard statements: | None. |
| 2.2g | Precautionary statements: | None. |
| 2.2h | Supplementary precaution statements: | None. |
| 2.3 | Other hazards: | No additional information available. |
| 2.3a | Does the chemical meet the criteria for PBT or vPvB? | Not applicable. |
| 2.3b | Other hazards which do not result in classification: | PI contains a low concentration of Phenanthridinium, 3,8-diamino-5-[3- |
| | | (diethylmethylammonio)propyl]-6-phenyl-, diiodide (CAS 25535-16-4) |
| | | which is below the threshold for reporting. PI is a suspected mutagen |
| | | at high concentrations. Prolonged skin contact may cause redness and |
| | | irritation. Because of the small quantity of product, the health hazard is |
| | | small. |
| | | |
| | on 3: Composition/information on ingredients | |
| 3.1 | Substance: | Item is a mixture therefore Section 3.1 is not applicable; see Section |
| 3.2 | Mixture: | 3.2. Item is a mixture. |
| J. Z | | REITI IS A ITIIXLUIE. |
| | The chemical identity and concentration or | |
| | concentration ranges of all ingredients which are | |
| | hazardous and are present above their cut-off levels: | No ingradiants identified for reporting in this section |
| | 3.2a Chemical identity: | No ingredients identified for reporting in this section. |
| Section | on 4: First aid measures | |
| 4.1 | Description of first aid measures: | If concerned, get medical attention/advice and provide physician with |
| | 2 333phon of mot ala mododiool | SDS information. Wash contaminated clothing before re-use. Never |
| | | |

Propidium Iodide SDS; Doc# F17-557-2-D; Effective: 05/12/2017; Supersedes: F17-557-2-C; Page 2 of 6

| 4.1a | | tive: 05/12/2017; Supersedes: F17-557-2-C; Page 2 of 6 |
|---|--|---|
| | Inhalation: | Remove to fresh air and keep at rest in a comfortable position for |
| | | breathing. If not breathing, give artificial respiration. Rinse nose and |
| | | mouth with water. Get medical attention if any discomfort continues. |
| 4.1b | Skin contact: | Wash skin thoroughly with soap and water for several minutes; |
| 4.10 | Skiii contact. | |
| | | continue to rinse for at least 15 minutes. Remove any contaminated |
| | | clothing and shoes and wash thoroughly before reuse. Get medical |
| | | attention if any discomfort continues. |
| 4.1c | Eye contact: | Promptly wash eyes with plenty of water while lifting the eyelids. Make |
| 0 | Lyo comacu | sure to remove any contact lenses from the eyes before rinsing. |
| | | |
| | | Continue to rinse for at least 15 minutes. Get medical attention if any |
| | | discomfort continues. |
| 4.1d | Ingestion: | NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK |
| | | FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without |
| | | advice from poison control center or medical professional. Get medical |
| | | |
| | | attention if any discomfort continues. |
| 4.2 | Most important symptoms and effects, both acute | PI is a suspected mutagen at high concentrations. Prolonged skin |
| | and delayed: | contact may cause redness and irritation. Because of the small |
| | | quantity of product, the health hazard is small. |
| 4.2a | Inhalation: | May cause coughing or mild irritation. |
| 4.2b | Skin contact: | |
| | | Prolonged skin contact may cause redness and mild irritation. |
| 4.2c | Eye contact: | May cause temporary eye irritation. |
| 4.2d | Ingestion: | May cause discomfort if swallowed. |
| 4.3 | Indication of any immediate medical attention and | No specific first aid measures noted, but first aid may still be required |
| - | special treatment needed: | in case of accidental exposure, inhalation, or ingestion of this product. |
| | oposia. Goddinont noodod. | If in doubt, get medical attention promptly! |
| | No. of the second secon | |
| 4.3a | Notes to physician/first responder: | Treat symptomatically. Refer to Sections 5-8 for advice on personal |
| | | protective equipment. |
| | | |
| Section | on 5: Firefighting measures | |
| 5.1 | Extinguishing media: | This product is not flammable. Use fire-extinguishing media |
| J. 1 | Extinguishing media. | |
| | | appropriate for the surrounding materials. |
| 5.1a | Suitable extinguishing media: | Water spray, foam, dry powder, or carbon dioxide. |
| 5.1b | Unsuitable extinguishing media: | None known. |
| 5.2 | Special hazards arising from the substance or | This product is not flammable. Product is not explosive. No dangerous |
| ·- | mixture: | reactions known under normal conditions of use. |
| - O- | | |
| 5.2a | Hazardous combustion products: | None under normal conditions. |
| 5.2b | Unusual fire & explosion hazards: | No unusual fire or explosion hazards noted. |
| 5.2c | Protective measures in fire: | Use protective equipment appropriate for surrounding materials. |
| 5.3 | Advice for firefighters: | Keep away from heat, hot surfaces, sparks, open flames and other |
| | / turner for monginerer | ignition sources. No smoking. |
| 5.5 | | |
| | 0 16 616 | |
| 5.3a | Special firefighting procedures: | No specific firefighting procedure given. |
| | Special protective equipment and precautions for | No specific firefighting procedure given. Wear full protective clothing, including self-contained breathing |
| 5.3a | Special protective equipment and precautions for | No specific firefighting procedure given. Wear full protective clothing, including self-contained breathing |
| 5.3a | Special firefighting procedures: Special protective equipment and precautions for firefighters: | No specific firefighting procedure given. Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards |
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| 5.3a 5.3b | Special protective equipment and precautions for firefighters: on 6: Accidental release measures | No specific firefighting procedure given. Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
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| 5.3a 5.3b Section 6.1 6.1a | Special protective equipment and precautions for firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: | No specific firefighting procedure given. Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. |
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| 5.3a 5.3b Sectio 6.1 6.1a 6.1c | Special protective equipment and precautions for firefighters: on 6: Accidental release measures Personal precautions, protective equipment, and emergency procedures: General release measures: Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures: Advice for emergency responders; personal precautions, protective equipment and emergency procedures: Environmental precautions: | No specific firefighting procedure given. Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use protective equipment appropriate for surrounding materials. No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8). No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned. Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Do not allow to enter drains, sewers, or watercourses. |

Propidium Iodide SDS; Doc# F17-557-2-D; Effective: 05/12/2017; Supersedes: F17-557-2-C; Page 3 of 6 Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapor. 6.4 Refer to Sections 8 and 13 for additional information. Reference to other sections: Section 7: Handling and storage Precautions for safe handling: Do not handle until all safety precautions have been read and 7.1 understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition. 7.1a Avoid contact with strong acids and strong oxidizers. Prevent handling of incompatible substances or mixtures: 7.1b Do not eat, drink, or smoke in work areas. Wash hands after use. Advice on general occupational hygiene: Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices. 7.2 Conditions for safe storage, including any Refer to product label. Store in cool place. Keep container tightly incompatibilities: closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses. 7.3 Specific end use(s): For research use only. Not for use in diagnostic procedures. Section 8: Exposure controls/personal protection Control parameters: 8.1 8.1a Occupational exposure limits, such as chemical Not available. identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin. 8.1b Appropriate engineering controls: 8.1c Individual protection measures, such as personal Wear gloves, protective goggles, and lab coat. protective equipment: 8.1d Safety symbols: 8.2 **Exposure controls:** 8.2a Process conditions: Provide eyewash station. Ensure that eyewash stations and safety showers are proximal to the Engineering controls: 8.2b workstation location. Provide adequate ventilation. 8.2c Ventilation controls: Refer to Section 5 for additional information. 8.2d Reference to other sections: Wear approved chemical safety goggles where eye exposure is 8.2e Eye/face protection: reasonably probable or face shield if risk of splashing. 8.2f Skin protection: Wear apron or protective clothing in case of contact. Use suitable protective gloves if risk of skin contact. 8.2g Hand protection: 8.2h Respiratory equipment: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Wear appropriate clothing to avoid skin contact. 8.2i Other protection: 8.2j DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift Hygiene measures: and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated 8.2k Thermal hazards: None known under normal conditions of use. 8.21 Environmental exposure controls: Not determined.

| 9.1 Information on basic physical and chemical properties: . 9.1a Appearance (physical state, color, etc.): Liquid; clear pink. 9.1b Odor: No characteristic odor. 9.1c Odor threshold: Not determined. | Sectio | Section 9: Physical and chemical properties | |
|---|--------|---|-------------------------|
| 9.1b Odor: No characteristic odor. | 9.1 | · | |
| | 9.1a | Appearance (physical state, color, etc.): | Liquid; clear pink. |
| 9.1c Odor threshold: Not determined. | 9.1b | Odor: | No characteristic odor. |
| | 9.1c | Odor threshold: | Not determined. |

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| 9.1d | pH: | tive: 05/12/2017; Supersedes: F17-557-2-C; Page 4 of 6 4.5-6.5 |
|---------------------------|---|--|
| 9.1e | Melting point/freezing point (°C): | Not determined. |
| 9.1f | Initial boiling point and boiling range: | <100°C @ 760 mm Hg. |
| 9.1g | Flash point (°C): | Not applicable. |
| 9.1h | Evaporation rate: | Not determined. |
| 9.1ii | Flammability (solid, gas): | Not determined. Not applicable. |
| 9.1i 9.1j | Upper/lower flammability or explosive limits: | |
| 9.1j 9.1k | Vapor pressure: | Not applicable. Not determined. |
| | | |
| 9.11 | Vapor density (Air =1): | Not determined. |
| 9.1m | Relative density: | Not determined. |
| 9.1n | Solubility(ies): | Soluble in water. |
| 9.10 | Partition coefficient (N-octanol/water): | Not determined. |
| 9.1p | Auto-ignition temperature (°C): | Not determined. |
| 9.1q | Decomposition temperature (°C): | Not determined. |
| 9.1r | Viscosity: | Not determined. |
| 9.1s | Explosive properties: | Not determined. |
| 9.1t | Oxidizing properties: | Not determined. |
| 9.2 | Other information: | None. |
| 9.2a | Other physical or chemical parameters: | None. |
| | | |
| | 10: Stability and reactivity | |
| 10.1 | Reactivity: | No data available. |
| 10.2 | Chemical stability: | Stable under normal temperature conditions. |
| 10.3 | Possibility of hazardous reactions: | Hazardous polymerization: no data available. |
| 10.4 | Conditions to avoid: | To avoid product degradation, avoid exposure to high temperatures or |
| | | direct sunlight or light. |
| 10.5 | Incompatible materials: | Strong oxidizing substances. |
| 10.6 | Hazardous decomposition products: | None under normal conditions. |
| | - | |
| Section | 11: Toxicological information | |
| 11.1 | Information on toxicological effects: | |
| 11.1a | Name: | Propidium Iodide. |
| 11.1b | Acute toxicity: | Not determined. |
| 11.1c | Skin corrosion/irritation: | Not determined. |
| 11.1d | Serious eye damage/irritation: | Not determined. |
| 11.1e | Respiratory or skin sensitization: | Not determined. |
| 11.1f | Germ cell mutagenicity: | Not determined. |
| 11.1g | Carcinogenicity: | Not determined. |
| 11.1h | Reproductive toxicity: | Not determined. |
| 11.1i | STOT-single exposure: | Not determined. |
| 11.1j | STOT-single exposure: | Not determined. |
| 11.1k | Aspiration hazard: | Not determined. |
| 11.11 | Information on the likely routes of exposure | May enter by skin and/or eye contact; inhalation of vapors/mist/dust. |
| 11.11 | (inhalation, ingestion, skin and eye contact): | ivialy efficiently skill and/or eye contact, initial attorn or vapors/mist/dust. |
| 11 1 | | May aguag diagomfort if awallowed |
| 11.1m | Ingestion: | May cause discomfort if swallowed. |
| 11.1n | Inhalation: | In high concentrations, vapors may irritate throat and respiratory |
| 11 1 - | Chin contact: | system and cause coughing. |
| 11.10 | Skin contact: | Liquid may irritate skin. |
| 11.1p | Eye contact: | Spray and vapor in the eyes may cause irritation and smarting. |
| 11.1q | Symptoms related to the physical, chemical and | No specific symptoms noted. |
| 44.4 | toxicological characteristics: | Not determined |
| 11.1r | Delayed and immediate effects as well as chronic | Not determined. |
| 44.4 | effects from short and long term exposure: | Net determined |
| 11.1s | Numerical measures of toxicity (such as acute | Not determined. |
| | toxicity estimates): | |
| 11.1t | Interactive effects: | Not determined. |
| 11.1u | Absence of specific data: | Not applicable. |
| 11.1v | Mixtures: | Item is a mixture. |
| 11.1w | Mixture vs. substance information: | See Section 3 for any substances in the mixture. |
| 11.1x | Classification by National Toxicity Program (NTP): | Not classified. |
| 11.1y | Classification by International Agency for Research | Not classified. |
| | on Cancer (IARC): | |
| 11.1z | Classification by OSHA 13: | Not classified. |
| 11.1ab | Other information: | PI is a suspected mutagen at high concentrations. Prolonged skin |
| | | contact may cause redness and irritation. Because of the small quantity |
| i | | of product, the health hazard is small. |
| | | |
| | | |
| Section | 12: Ecological information | |
| | n 12: Ecological information Toxicity: | |
| Section 12.1 12.1a | n 12: Ecological information Toxicity: Name: | . Propidium lodide. |

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|--------------------|---|--|
| 12.1b | Ecotoxicity (aquatic and terrestrial, where available): | Not determined. |
| 12.2 | Persistence and degradability: | There are no data on the degradability of this product. |
| 12.3 | Bioaccumulative potential: | No data available on bioaccumulation. |
| 12.4 | Mobility in soil: | The product is soluble in water. |
| 12.5 | Results of PBT and vPvB assessment: | Not determined. |
| 12.6 | Other adverse effects: | No data available. |
| | An Bloom I would be at the settle of | |
| | 13: Disposal considerations | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| 13.1 | Waste treatment methods: | When handling waste, consideration should be made to the safety |
| 40.4- | Description of words residues and information or | precautions applying to handling of the product. |
| 13.1a | Description of waste residues and information on | Dispose of waste and residues in accordance with local authority |
| | their safe handling and methods of disposal, | requirements. For the safety of persons conducting disposal, recycling |
| | including the disposal of any contaminated | or reclamation activities, please refer to the information in Section 8 |
| | packaging: | (exposure controls and personal protection) of the SDS. |
| Section | 14: Transport information | |
| 14.1 | UN number: | Not applicable. |
| 14.2 | UN proper shipping name: | Not applicable. |
| 14.3 | Transport hazard class(es): | Not applicable. |
| 14.4 | Packing group: | Not applicable. |
| 14.5 | Environmental hazards: | Not applicable. |
| 14.5a | Is it environmentally dangerous according to UN | The product is not covered by these regulations. |
| 1 1 .Ja | Model Regulations (IMDG Code, ADR, RID, and | The product is not covered by these regulations. |
| | ADN)?: | |
| 14.5b | Is it a marine pollutant according to the IMDG | No. |
| 17.00 | code?: | INO. |
| 14.6 | Special precautions for user: | None known. |
| 14.7 | Transport in bulk according to Annex II of | Not applicable. |
| | MARPOL and the IBC code: | Not applicable. |
| 14.7a | Other information: | The product is not considered a dangerous good for transport. |
| 14.7b | Classification for other modes of transport: | Contact supplier. |
| 1 111 6 | Clacomodicities of the modes of the modes. | Contact cappilon |
| Section | 15: Regulatory information | |
| 15.1 | Safety, health and environmental | |
| | regulations/legislation specific for the substance | · |
| | or mixture: | |
| 15.1a | Regional safety, health and environmental | |
| | regulations specific for the product in question: | · |
| 15.1b | USA SARA Components (such as 302/311/313): | Not listed. |
| 15.1c | USA Massachusetts Right to Know: | Not listed. |
| 15.1d | USA Pennsylvania Right to Know: | Not listed. |
| 15.1e | USA New Jersey Right to Know: | Not listed. |
| 15.1f | USA California Prop. 65 Components: | Not listed. |
| 15.1g | EU Regulation 1907/2006 {REACH}: | The state of the s |
| 15.1h | Annex XIV substances subject to authorization: | Not listed. |
| 15.1i | Substances of very high concern: | Not listed. |
| 15.1j | Approved code of practice: | Classification and labeling of substances and preparations dangerous |
| 10.1 | Approved edge of practice. | for supply. Safety data sheets for substances and preparations. |
| 15.1k | Guidance notes: | Workplace exposure limits EH40. |
| 15.1l | EU legislation references: | (EC) No. 1272/2008 on the classification, labelling and packaging of |
| | | substances and mixtures {CLP Regulation}. EC 830/2015. Regulation |
| | | (EC) No 1907/2006 of the European Parliament and of the Council of |
| | | 18 December 2006 concerning the Registration, Evaluation, |
| | | Authorisation and Restriction of Chemicals (REACH), establishing a |
| | | European Chemicals Agency, amending Directive 1999/45/EC and |
| | | repealing Council Regulation (EEC) No 793/93 and Commission |
| | | Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC |
| | | and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and |
| | | 2000/21/EC, including amendments. |
| 15.2 | Chemical safety assessment: | Not required. |
| 15.2a | Other regulatory information: | None. |
| . Ju | | |
| Section | 16: Other information | |
| 16.1 | Other information: | |
| 16.1a | Date of revision: | 12-May-2017 |
| 16.1b | SDS number and revision: | F17-557-2-D |
| 16.1c | Supersedes SDS number and revision: | F17-557-2-C |
| 16.1d | Changes made to the previous version of the SDS: | Reviewed and updated document control numbers. |
| 16.1e | Key/legend to abbreviations and acronyms used in | ACGIH American Conference of Governmental Industrial Hygienists. |
| | the SDS: | ADN European Provisions concerning the International Carriage of |
| | - | Dangerous Goods by Inland Waterway. |
| | I. | |

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|--|---|
| | ADR The European Agreement concerning the International Carriage |
| | of Dangerous Goods by Road. |
| | ATE Acute Toxicity Estimate. |
| | BCF Bio Concentration Factor. |
| | CAS Chemical Abstracts Service. |
| | CLP Classification, Labelling and Packaging. |
| | CMR Carcinogen, Mutagen or Reproductive toxicant. |
| | COD Chemical Oxygen Demand. |
| | EC European Commission. |
| | EC50 Half maximal effective concentration. |
| | EH40 Resource containing the list of workplace exposure limits for us |
| | with the Control of Substances Hazardous to Health Regulations. |
| | EINECS European Inventory of Existing Commercial chemical |
| | Substances. |
| | ELINCS European List of Notified Chemical Substances. |
| | EU European Union. |
| | GHS Globally Harmonized System of Classification and Labelling of |
| | Chemicals. |
| | H Statement GHS Hazard statement. |
| | IATA International Air Transport Association. |
| | IBC Intermediate Bulk Container. |
| | IC50 Half maximal inhibitory concentration. |
| | IMDG International Maritime Dangerous Goods. |
| | LC50 Median lethal concentration. |
| | LD50 Median lethal dose. |
| | LogPow logarithm of the octanol/water partition coefficient. |
| | MARPOL 73/78 International Convention for the Prevention of |
| | Pollution From Ships, 1973 as modified by the Protocol of 1978. |
| | OEL Occupational Exposure Limit. |
| | OSHA Occupational Safety and Health Administration (USA). |
| | PBT Persistent, Bioaccumulative, and Toxic. |
| | PEL Permissible Exposure Limit. |
| | RID The Regulations concerning the International Carriage of Dangerous Goods by Rail. |
| | SADT Self-Accelerating Decomposition Temperature. |
| | SARA Superfund Amendments and Reauthorization Act. |
| | SCBA Self-Contained Breathing Apparatus. |
| | SDS Safety Data Sheet. |
| | STOT Specific Target Organ Toxicity. |
| | STOT-RE Specific Target Organ Toxicity - Repeated Exposure. |
| | STOT-SE Specific Target Organ Toxicity - Single Exposure. |
| | UN United Nations. |
| | USA United States of America. |
| | vPvB very Persistent very bioaccumulative. |
| 6.1f Full text of hazard statements and/or precautionary | All statements were written out in full. |
| statements not written out in full elsewhere: | |
| | fic material designated and may not be valid for such material used |
| | or in any process. Such information is, to the best of the company's |
| communication and called indication and | |

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

END OF SDS



SAFETY DATA SHEET (SDS) according to Regulation (EC) No. 830/2015 amending 1907/2006

| 1.1 | on 1: Identification of the substance/mixture and of the Product identifier: | |
|---------------|--|--|
| | | Hoechst 33342 |
| 1.1a | Other means of identification: | |
| 1.1b | Alternative product name(s)/ synonyms: | Hoechst stain, HS |
| 1.1c | Product number/Catalog #(s): | 556, 639 |
| 1.1d | Internal identification: | Hoechst stain; HS |
| 1.2 | Relevant identified uses of the substance or | For research use only. Not for use in diagnostic procedures. |
| | mixture and uses advised against: | |
| 1.2a | Brief description of what the substance or mixture is | Cell permeant blue fluorescent stain typically used to visualize the |
| | intended to do: | nuclei of cells. |
| 1.3 | Details of the supplier of the SDS: | |
| 1.3a | Name: | ImmunoChemistry Technologies, LLC (ICT) |
| 1.3b | Address: | 9401 James Avenue South, Suite 155 |
| 1.3c | City, State, Zip, Country | Bloomington, MN 55431-2500 USA |
| 1.3d | Phone number: | 1-800-829-3194 and 952-888-8788 |
| 1.3e | Fax number: | 952-888-8988 |
| 1.3f | Website: | www.immunochemistry.com |
| 1.3g | Email: | help@immunochemistry.com |
| 1.3h | Contact person at ICT: | Quality Documentation Department |
| 1.4 | Emergency telephone number: | ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; |
| | | ICT hours are 9 am-5 pm central time USA, Monday through Friday |
| | | (excluding holidays). Chemtrec 24-hour access within USA and |
| | | Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted. |
| | | |
| | n 2: Hazards identification | |
| 2.1 | Classification of the substance or mixture: | |
| 2.1a | Product is a: | Mixture. |
| 2.1b | Classification according to (EC) No. 1272/2008 | Does not meet the criteria for classification. |
| | {CLP}: | |
| 2.1c | The most important adverse physiochemical, human | Refer to Sections 9-12. |
| | health, and environmental effects: | |
| 2.2 | Label elements: | None. |
| 2.2a | GHS label elements, including precautionary | |
| | statements: | |
| 2.2b | Contains: | |
| 2.2c | Labeling in accordance with (EC) No. 1272/2008: | |
| 2.2d | Hazard Pictograms (Hazard Symbols): | None. |
| 2.2e | Signal word: | None. |
| 2.2f | Hazard statements: | None. |
| 2.2g | Precautionary statements: | None. |
| 2.2h | Supplementary precaution statements: | None. |
| 2.3 | Other hazards: | No additional information available. |
| 2.3a | Does the chemical meet the criteria for PBT or vPvB? | Not applicable. |
| 2.3b | Other hazards which do not result in classification: | Hoechst contains a low concentration of Bis benzimide H 33342 |
| | | trihydrochloride (CAS 23491-52-3) which is below the threshold for |
| | | reporting. Hoechst is a suspected mutagen at high concentrations. |
| | | Prolonged skin contact may cause redness and irritation. Because of |
| | | the small quantity of product, the health hazard is small. |
| Cact!- | n 3. Composition/information on in andicut- | |
| | on 3: Composition/information on ingredients | Henrica maintains therefore Continue 2.4 is not smallest less |
| 3.1 | Substance: | Item is a mixture therefore Section 3.1 is not applicable; see Section |
| 2 2 | Mixtura | 3.2. |
| 3.2 | Mixture: | Item is a mixture. |
| | The chemical identity and concentration or | |
| | concentration ranges of all ingredients which are | |
| | L paragraphic and are process above their cut off levels. | |
| | hazardous and are present above their cut-off levels: | No ingredients identified for remerting in this |
| | 3.2a Chemical identity: | No ingredients identified for reporting in this section. |
| Socti- | 3.2a Chemical identity: | No ingredients identified for reporting in this section. |
| | 3.2a Chemical identity: on 4: First aid measures | |
| Sectio 4.1 | 3.2a Chemical identity: | No ingredients identified for reporting in this section. If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before re-use. Never |

Hoechst 33342 SDS; Doc# F17-556-2-D; Effective: 05/12/2017; Supersedes: F17-556-2-C; Page 2 of 6

| | | ve: 05/12/2017; Supersedes: F17-556-2-C; Page 2 of 6 |
|--|--|--|
| 4.1a | Inhalation: | Remove to fresh air and keep at rest in a comfortable position for |
| | | breathing. If not breathing, give artificial respiration. Rinse nose and |
| | | mouth with water. Get medical attention if any discomfort continues. |
| 4.1b | Skin contact: | Wash skin thoroughly with soap and water for several minutes; |
| | | continue to rinse for at least 15 minutes. Remove any contaminated |
| | | clothing and shoes and wash thoroughly before reuse. Get medical |
| | | attention if any discomfort continues. |
| 4.1c | Eye contact: | Promptly wash eyes with plenty of water while lifting the eyelids. Make |
| 4.10 | Lye contact. | sure to remove any contact lenses from the eyes before rinsing. |
| | | |
| | | Continue to rinse for at least 15 minutes. Get medical attention if any |
| | | discomfort continues. |
| 4.1d | Ingestion: | NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK |
| | | FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without |
| | | advice from poison control center or medical professional. Get medical |
| | | attention if any discomfort continues. |
| 4.2 | Most important symptoms and effects, both acute | Hoechst is a suspected mutagen at high concentrations. Prolonged |
| | and delayed: | skin contact may cause redness and irritation. Because of the small |
| | and doubted | quantity of product, the health hazard is small. |
| 4.2a | Inhalation: | May cause coughing or mild irritation. |
| | | |
| 4.2b | Skin contact: | Prolonged skin contact may cause redness and mild irritation. |
| 4.2c | Eye contact: | May cause temporary eye irritation. |
| 4.2d | Ingestion: | May cause discomfort if swallowed. |
| 4.3 | Indication of any immediate medical attention and | No specific first aid measures noted, but first aid may still be required |
| | special treatment needed: | in case of accidental exposure, inhalation, or ingestion of this product. |
| | | If in doubt, get medical attention promptly! |
| 4.3a | Notes to physician/first responder: | Treat symptomatically. Refer to Sections 5-8 for advice on personal |
| | 1, | protective equipment. |
| | | |
| Sectio | n 5: Firefighting measures | |
| 5.1 | Extinguishing media: | This product is not flammable. Use fire-extinguishing media |
| 5.1 | Extinguishing media. | appropriate for the surrounding materials. |
| T 1 - | Cuitable autinoviables madie | |
| 5.1a | Suitable extinguishing media: | Water spray, foam, dry powder, or carbon dioxide. |
| 5.1b | Unsuitable extinguishing media: | None known. |
| 5.2 | Special hazards arising from the substance or | This product is not flammable. Product is not explosive. No dangerous |
| | mixture: | reactions known under normal conditions of use |
| | | reactions known under normal conditions of use. |
| 5.2a | Hazardous combustion products: | None under normal conditions. |
| 5.2a 5.2b | | |
| | Hazardous combustion products: | None under normal conditions. No unusual fire or explosion hazards noted. |
| 5.2b | Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. |
| 5.2b 5.2c | Hazardous combustion products: Unusual fire & explosion hazards: | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other |
| 5.2b 5.2c 5.3 | Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| 5.2b 5.2c 5.3 | Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures: | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. No specific firefighting procedure given. |
| 5.2b 5.2c 5.3 | Hazardous combustion products: Unusual fire & explosion hazards: Protective measures in fire: Advice for firefighters: Special firefighting procedures: Special protective equipment and precautions for | None under normal conditions. No unusual fire or explosion hazards noted. Use protective equipment appropriate for surrounding materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. No specific firefighting procedure given. Wear full protective clothing, including self-contained breathing |
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Hoechst 33342 SDS; Doc# F17-556-2-D; Effective: 05/12/2017; Supersedes: F17-556-2-C; Page 3 of 6 Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapor. Reference to other sections: Refer to Sections 8 and 13 for additional information. 6.4 Section 7: Handling and storage Do not handle until all safety precautions have been read and 7.1 Precautions for safe handling: understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition. 7.1a Prevent handling of incompatible substances or Avoid contact with strong acids and strong oxidizers. mixtures: 7.1b Do not eat, drink, or smoke in work areas. Wash hands after use. Advice on general occupational hygiene: Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices. 7.2 Conditions for safe storage, including any Refer to product label. Store in cool place. Keep container tightly incompatibilities: closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses. 7.3 Specific end use(s): For research use only. Not for use in diagnostic procedures. Section 8: Exposure controls/personal protection Control parameters: 8.1 8.1a Occupational exposure limits, such as chemical Not available. identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin. 8.1b Appropriate engineering controls: 8.1c Individual protection measures, such as personal Wear gloves, protective goggles, and lab coat. protective equipment: 8.1d Safety symbols: 8.2 **Exposure controls:** 8.2a Process conditions: Provide eyewash station. 8.2b Engineering controls: Ensure that eyewash stations and safety showers are proximal to the workstation location. Ventilation controls: Provide adequate ventilation. 8.2c 8.2d Reference to other sections: Refer to Section 5 for additional information. Wear approved chemical safety goggles where eye exposure is 8.2e Eye/face protection: reasonably probable or face shield if risk of splashing. 8.2f Skin protection: Wear apron or protective clothing in case of contact. Use suitable protective gloves if risk of skin contact. 8.2g Hand protection: 8.2h Respiratory equipment: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 8.2i Wear appropriate clothing to avoid skin contact. Other protection: 8.2j DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift Hygiene measures: and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated 8.2k None known under normal conditions of use. Thermal hazards: 8.21 Environmental exposure controls: Not determined. Section 9: Physical and chemical properties 9.1 Information on basic physical and chemical

Liquid; clear light yellow.

No characteristic odor.

Not determined.

properties:

Odor threshold:

Odor:

Appearance (physical state, color, etc.):

9.1a

9.1b

9.1c

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|-----------------|--|--|
| 9.1d | pH: | 3.0-5.0 |
| 9.1e | Melting point/freezing point (°C): | Not determined. |
| 9.1f | Initial boiling point and boiling range: | <100°C @ 760 mm Hg. |
| 9.1g | Flash point (°C): | Not applicable. |
| 9.1h | Evaporation rate: | Not determined. |
| 9.1i | Flammability (solid, gas): | Not applicable. |
| 9.1j | Upper/lower flammability or explosive limits: | Not applicable. |
| 9.1k | Vapor pressure: | Not determined. |
| 9.11 | Vapor density (Air =1): | Not determined. |
| 9.1m | Relative density: | Not determined. |
| 9.1n | Solubility(ies): | Soluble in water. |
| 9.10 | Partition coefficient (N-octanol/water): | Not determined. |
| 9.1p | Auto-ignition temperature (°C): | Not determined. |
| 9.1q | Decomposition temperature (°C): | Not determined. |
| 9.1r | Viscosity: | Not determined. |
| 9.1s | Explosive properties: | Not determined. |
| 9.1t | Oxidizing properties: | Not determined. |
| 9.2 | Other information: | None. |
| 9.2a | Other physical or chemical parameters: | None. |
| | 40.001.00 | |
| | 10: Stability and reactivity | No data available |
| 10.1 | Reactivity: | No data available. |
| 10.2 | Chemical stability: | Stable under normal temperature conditions. |
| 10.3 | Possibility of hazardous reactions: Conditions to avoid: | Hazardous polymerization: will not polymerize. |
| 10.4 | Conditions to avoid: | To avoid product degradation, avoid exposure to high temperatures or |
| 40.5 | la como etible me teriale. | direct sunlight or light. |
| 10.5 | Incompatible materials: | Strong oxidizing substances. |
| 10.6 | Hazardous decomposition products: | None under normal conditions. |
| Castian | 44. Tavia da signi information | |
| | 11: Toxicological information | |
| 11.1 | Information on toxicological effects: | |
| 11.1a | Name: | Hoechst 33342 |
| 11.1b | Acute toxicity: | Not determined. |
| 11.1c | Skin corrosion/irritation: | Not determined. |
| 11.1d | Serious eye damage/irritation: | Not determined. |
| 11.1e | Respiratory or skin sensitization: | Not determined. |
| 11.1f | Germ cell mutagenicity: | Toxicological studies are not yet available. In vitro DNA repair and |
| | | inhibition tests suggest mutagenic effects in mouse fibroblasts and hamster lung cells. Knowledge about health hazard is incomplete. |
| 44.4 == | Caraina naniaituu | Not determined. |
| 11.1g 11.1h | Carcinogenicity: Reproductive toxicity: | Not determined. Not determined. |
| 11.1fi 11.1i | STOT-single exposure: | |
| 11.11 11.1j | STOT-repeated exposure: | Not determined. |
| | | Not determined. |
| 11.1k | Aspiration hazard: | Not determined. May enter by skin and/or eye contact; inhalation of vapors/mist/dust. |
| 11.11 | Information on the likely routes of exposure | way enter by skin and/or eye contact, innaiation of vapors/mist/dust. |
| 11 1 | (inhalation, ingestion, skin and eye contact): | May cause discomfort if swallowed |
| 11.1m 11.1n | Ingestion: Inhalation: | May cause discomfort if swallowed. In high concentrations, vapors may irritate throat and respiratory |
| 11.111 | mmaiauUn. | system and cause coughing. |
| 11.1o | Skin contact: | Liquid may irritate skin. |
| 11.10 11.1p | Eye contact: | Spray and vapor in the eyes may cause irritation and smarting. |
| 11.1p | Symptoms related to the physical, chemical and | No specific symptoms noted. |
| 11.14 | toxicological characteristics: | rao apodino ayriptorna notou. |
| 11.1r | Delayed and immediate effects as well as chronic | Not determined. |
| ' ' ' ' ' | effects from short and long term exposure: | Hot dotofffilliou. |
| 11.1s | Numerical measures of toxicity (such as acute | Not determined. |
| 11.15 | toxicity estimates): | TYOU GOLGITIIII IGG. |
| 11.1t | Interactive effects: | Not determined. |
| 11.1t | Absence of specific data: | Not applicable. |
| 11.1u | Mixtures: | Item is a mixture. |
| 11.1v | Mixture vs. substance information: | See Section 3 for any substances in the mixture. |
| 11.1w | Classification by National Toxicity Program (NTP): | Not classified. |
| 11.1x 11.1y | Classification by International Agency for Research | Not classified. Not classified. |
| 11.19 | | เพน บเฉออเทอน. |
| 11.1z | on Cancer (IARC): | Not classified. |
| 11.1Z 11.1ab | Classification by OSHA 13: Other information: | Hoechst is a suspected mutagen at high concentrations. Prolonged skin |
| 11.180 | Other Illiothation. | contact may cause redness and irritation. Because of the small quantity |
| | | of product, the health hazard is small. |
| | | טו פוסטטטנ, נווכ ווכמונוו וומצמוט וז אוומוו. |
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| | Hoechst 33342 SDS; Doc# F17-556-2-D; Effect | |
|--|---|---|
| Section | n 12: Ecological information | |
| 12.1 | Toxicity: | |
| 12.1a | Name: | Hoechst 33342. |
| 12.1b | Ecotoxicity (aquatic and terrestrial, where available): | Not determined. |
| 12.2 | Persistence and degradability: | There are no data on the degradability of this product. |
| 12.3 | Bioaccumulative potential: | No data available on bioaccumulation. |
| 12.4 | Mobility in soil: | The product is soluble in water. |
| 12.5 | Results of PBT and vPvB assessment: | Not determined. |
| 12.6 | Other adverse effects: | No data available. |
| | | |
| | 13: Disposal considerations | |
| 13.1 | Waste treatment methods: | When handling waste, consideration should be made to the safety precautions applying to handling of the product. |
| 13.1a | Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: | Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS. |
| Section | 14: Transport information | |
| 14.1 | UN number: | Not applicable. |
| 14.2 | UN proper shipping name: | Not applicable. |
| 14.3 | Transport hazard class(es): | Not applicable. |
| 14.4 | Packing group: | Not applicable. |
| 14.5 | Environmental hazards: | |
| 14.5a | Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: | The product is not covered by these regulations. |
| 14.5b | Is it a marine pollutant according to the IMDG code?: | No. |
| 14.6 | Special precautions for user: | None known. |
| 14.7 | Transport in bulk according to Annex II of MARPOL and the IBC code: | Not applicable. |
| 14.7a | Other information: | The product is not considered a dangerous good for transport. |
| 14.7b | Classification for other modes of transport: | Contact supplier. |
| | | |
| | | |
| | 15: Regulatory information | |
| Section 15.1 | 15: Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture: | |
| | Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental | |
| 15.1 15.1a | Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: | . Not listed. |
| 15.1 | Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental | . Not listed. Not listed. |
| 15.1a 15.1b | Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: | |
| 15.1a 15.1b 15.1c 15.1d 15.1d | Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: | Not listed. Not listed. Not listed. |
| 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f | Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: | Not listed. Not listed. |
| 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g | Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: | Not listed. Not listed. Not listed. Not listed |
| 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h | Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: | Not listed. Not listed. Not listed. Not listed. Not listed Not listed. |
| 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i | Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: | Not listed. Not listed. Not listed. Not listed. Not listed. Not listed. Not listed. Not listed. |
| 15.1a 15.1a 15.1b 15.1c 15.1d 15.1e 15.1f 15.1g 15.1h 15.1i 15.1i 15.1i | Safety, health and environmental regulations/legislation specific for the substance or mixture: Regional safety, health and environmental regulations specific for the product in question: USA SARA Components (such as 302/311/313): USA Massachusetts Right to Know: USA Pennsylvania Right to Know: USA New Jersey Right to Know: USA California Prop. 65 Components: EU Regulation 1907/2006 {REACH}: Annex XIV substances subject to authorization: Substances of very high concern: Approved code of practice: Guidance notes: EU legislation references: | Not listed. Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations. Workplace exposure limits EH40. (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. |
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Hoechst 33342 SDS; Doc# F17-556-2-D; Effective: 05/12/2017; Supersedes: F17-556-2-C; Page 6 of 6 Reviewed and updated document control numbers. 16.1d Changes made to the previous version of the SDS: 16.1e Key/legend to abbreviations and acronyms used in ACGIH American Conference of Governmental Industrial Hygienists. ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway. ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road. ATE Acute Toxicity Estimate. BCF Bio Concentration Factor. CAS Chemical Abstracts Service. CLP Classification, Labelling and Packaging. CMR Carcinogen, Mutagen or Reproductive toxicant. COD Chemical Oxygen Demand. EC European Commission. EC50 Half maximal effective concentration. EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations. EINECS European Inventory of Existing Commercial chemical Substances. ELINCS European List of Notified Chemical Substances. EU European Union. GHS Globally Harmonized System of Classification and Labelling of Chemicals. H Statement GHS Hazard statement. IATA International Air Transport Association. IBC Intermediate Bulk Container. IC50 Half maximal inhibitory concentration. IMDG International Maritime Dangerous Goods. LC50 Median lethal concentration. LD50 Median lethal dose. LogPow logarithm of the octanol/water partition coefficient. MARPOL 73/78 International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. OEL Occupational Exposure Limit. OSHA Occupational Safety and Health Administration (USA). PBT Persistent, Bioaccumulative, and Toxic. PEL Permissible Exposure Limit. RID The Regulations concerning the International Carriage of Dangerous Goods by Rail. SADT Self-Accelerating Decomposition Temperature. SARA Superfund Amendments and Reauthorization Act. SCBA Self-Contained Breathing Apparatus. SDS Safety Data Sheet. STOT Specific Target Organ Toxicity. STOT-RE Specific Target Organ Toxicity - Repeated Exposure.

16.1f Full text of hazard statements and/or precautionary statements not written out in full elsewhere:

All statements were written out in full.

vPvB very Persistent very bioaccumulative.

USA United States of America.

STOT-SE Specific Target Organ Toxicity - Single Exposure.

DISCLAIMER:

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

UN United Nations.

END OF SDS