

Safety Data Sheet per OSHA HazCom 2012

| 1 Identification |
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| I definitation |
| Product identifier |
| Product name: <u>5-Bromo-3-indolyl beta-d-galactopyranoside</u> Stock number: J65978 |
| GAS Number: 97753-82-7 |
| Relevant identified uses of the substance or mixture and uses advised against. Identified use: SU24 Scientific research and development |
| Details of the supplier of the safety data sheet Manufacturer/Supplier: |
| Alfa Aesar Thermo Fisher Scientific Chemicals, Inc. 30 Bond Street |
| 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 |
| Fax: 800-322-4757 Email: tech@alfa.com |
| www.alfa.com Information Department: Health, Safety and Environmental Department |
| Engency telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789. |
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| 2 Hazard(s) identification Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) |
| The substance is not classified according to the Globally Harmonized System (GHS). Hazards not otherwise classified No information known. |
| Label elements |
| GHS label elements Not applicable Hazard pictograms Not applicable Signal word Not applicable |
| Hazard statements Not applicable |
| WHMIS classification Not' controlled Classification system |
| HMIS ratings (scale 0-4) (Hazardous Materials Identification System) |
| HEALTH I Health (acute effects) = 1 FRE I Flammability = 1 |
| Reactivity[1] Physical Hazard = 1 |
| Other hazards Results of PBT and vPvB assessment |
| PBT: Not applicable. vPvB: Not applicable. |
| 3 Composition/information on ingredients |
| Chemical characterization: Substances CAS# Description: |
| |
| 97753-82-7 5-Bromo-3-indolyl beta-d-galactopyranoside |
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| Product name: 5-Bromo-3-indolyl be | eta-u-galactopyranosiue | | | |
| See Section 8 for information on person See Section 13 for disposal information. | al protection equipment. | (Contd. of page 1) | | |
| 7 Handling and storage | | | | |
| Handling Precautions for safe handling Keep container tightly sealed. Information about protection against explosions and fires: No information known. Conditions for safe storage, including any incompatibilities | | | | |
| Storage | | | | |
| Requirements to be met by storerooms and receptacles: Store in freezer (-20 °C). Information about storage in one common storage facility: Protect from heat. Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed. Specific end use(s) No further relevant information available. | | | | |
| Specific end use(s) No further relevant | information available. | | | |
| | | | | |
| Control parameters Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. Additional information: No data | | | | |
| Exposure controls Personal protective equipment General protective and hygienic measures | | | | |
| The usual precautionary measures for handling chemicals should be followed | | | | |
| Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. | | | | |
| Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands: | | | | |
| Impervious gloves Check protective gloves prior to each us The selection of suitable gloves not only | se for their proper condition. | | | |
| The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. Penetration time of glove material (in minutes) Not determined Eye protection: Safety glasses Body protection: Protective work clothing. | | | | |
| 9 Physical and chemical properties | | | | |
| Information on basic physical and chemical properties | | | | |
| General Information Appearance: | | | | |
| Form: Color: | Powder White | | | |
| Odor: Odor threshold: | Not determined Not determined. | | | |
| pH-value: | Not applicable. | | | |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting: | Not determined Not determined Not determined Not determined. Not determined Not determined Not determined. | | | |
| Danger of explosion: Explosion limits: | Not determined. | | | |
| Lower: Upper: | Not determined Not determined | | | |
| Vapor pressure: Density: | Not applicable. Not determined | | | |
| Relative density | Not determined. | | | |
| Vapor density Evaporation rate Solubility in / Miscibility with | Not applicable. Not applicable. | | | |
| Water: Partition coefficient (n-octanol/water) Viscosity: | Not determined : Not determined. | | | |
| dynamic: kinematic: | Not applicable. Not applicable. | | | |
| Other information | No further relevant information available. | | | |
| 10 Stability and reactivity Reactivity No information known. Chemical stability Stable under recommended storage conditions. Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Possibility of hazardous reactions Reacts with strong oxidizing agents Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents Heat Hazardous decomposition products: Carbon monovide and carbon dioxide | | | | |

nazardous decomposition products Carbon monoxide and carbon dioxide Nitrogen oxides

Product name: 5-Bromo-3-indolyl beta-d-galactopyranoside

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| Hydrogen | promiae |
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| Hydrogen bromide | (Conto. or page 2) |
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| 11 Toxicological information Information on toxicological effects Acute toxicity: No effects known. LD/LC50 values that are relevant for classification: No data Skin irritation or corrosion: May cause irritation Eye irritation or corrosion: May cause irritation Sensitization: No sensitizing effects known. Germ cell mutagenicity: No effects known. Carcinogenicity: No effects known. Carcinogenicity: No effects known. Carcinogenicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: No effects known. Specific target organ system toxicity - single exposure: No effects known. Subacute to chronic toxicity: No effects known. Subacute to chronic toxicity: No effects known. Subacute to chronic toxicity: No effects known. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not s | |
| 12 Ecological information | |
| Toxicity Aquatic toxicity: No further relevant information available. Persistence and degradability No further relevant information available. Bioaccumulative potential No further relevant information available. Mobility in soil No further relevant information available. Additional ecological information: General notes: Do not allow material to be released to the environment without proper governmental permits. Do not allow undiluted product or large quantities to reach ground water, water course or sewage system. Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available. | |
| 13 Disposal considerations | |
| Waste treatment methods Recommendation Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations. | |
| 14 Transport information | |
| UN-Number DOT, ADN, IMDG, IATA Not applicable | |
| UN proper shipping name DOT, ADN, IMDG, IATA Not applicable | |
| Transport hazard class(es) | |
| DOT, ADR, ADN, IMDG, IATA Class Not applicable | |
| Packing group DOT, IMDG, IATA Not applicable | |
| DOT, IMDG, IATA Not applicable Environmental hazards: Not applicable. | |
| Special precautions for user Not applicable. | |
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. | |
| Transport/Additional information: DOT | |
| Marine Pollutant (DOT): No | |
| UN "Model Regulation": - | |
| 15 Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable National regulations This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance to research and development only. This product must be used by or directly under the supervision of a technically qualifie product must not be used for commercial purposes or in formulations for commercial purposes. This product is not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not list | ed individual as defined by TSCA. This List (NDSL). not listed. SH) for the manufacturing, placing on the |
| | (Contd. on page 4) |

(Contd. on page 4)

Product name: 5-Bromo-3-indolyl beta-d-galactopyranoside

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the use Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) DOT: US Department of Transportation Of Transportation Of Transportation System (USA) WHMIS: Hazardous Materials Identification System (USA) USSO: Lethal concentration, 50 percent VPUB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSTA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) MARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

(Contd. of page 3)

USA