



|        | Revision of the second s  |                    |
|--------|--|--------------------|
|        | Identification   |                    |
|        | Product identifier Product name: <b>3-Bromo-DL-phenylalanine</b>   |                    |
|        | Stock number: H65547   |                    |
|        | CAS Number:<br>30163-20-3  |                    |
|        | Relevant identified uses of the substance or mixture and uses advised against.<br>Identified use: SU24 Scientific research and development   |                    |
|        | Details of the supplier of the safety data sheet   |                    |
|        | Manufacturer/Supplier:<br>Alfa Aesar   |                    |
|        | Thermo Fisher Scientific Chemicals, Inc.<br>30 Bond Street   |                    |
|        | Ward Hill, MA 01835-8099<br>Tel: 800-343-0660  |                    |
|        | Fax: 800-322-4757  |                    |
|        | Email: tech@alfa.com<br>www.alfa.com   |                    |
|        | Information Department: Health, Safety and Environmental Department Emergency 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.             |
|        | Hazard(s) identification   |                    |
|        | Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)<br>The substance is not classified as hazardous according to 29 CFR 1910 (OSHA GHS).  |                    |
|        | Hazards not otherwise classified No information known.   |                    |
|        | Label elements<br>GHS label elements Not applicable  |                    |
|        | Hazard pictograms Not applicable<br>Signal word Not applicable   |                    |
|        | Hazard statements Not applicable<br>WHMIS classification Not controlled  |                    |
|        | Classification system<br>HMIS ratings (scale 0-4)  |                    |
|        | (Hazardous Materials Identification System)  |                    |
|        | HEALTH     I       Health (acute effects) = 1       FRE     I       Flammability = 1   |                    |
|        | REACTIVITY ] Physical Házard = 1   |                    |
|        | Other hazards<br>Results of PBT and vPvB assessment  |                    |
|        | PBT: Not applicable.<br>vPvB: Not applicable.  |                    |
| _      |  |                    |
| 3      | Composition/information on ingredients   |                    |
|        | Composition/information on ingredients<br>Chemical characterization: Substances  |                    |
|        |  |                    |
|        | Chemical characterization: Substances<br>CAS# Description:   |                    |
| 4      | Chemical characterization: Substances<br>CAS# Description:<br>30163-20-3 3-Bromo-DL-phenylalanine<br>First-aid measures<br>Description of first aid measures   |                    |
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Product name: 3-Bromo-DL-phenylalanine

| Froduct name. 3-Di Omo-DE-prienyial   |  |                    |
|---|--|--------------------|
| See Section 8 for information on persona<br>See Section 13 for disposal information.  | al protection equipment.   | (Contd. of page 1) |
| Conditions for safe storage, including<br>Storage<br>Requirements to be met by storeroom  | explosions and fires: No information known.<br>any incompatibilities<br>as and receptacles: No special requirements.<br>mon storage facility: Store away from oxidizing agents.<br>nditions:<br>ad containers.   |                    |
| Control parameters<br>Components with limit values that req<br>The product does not contain any relevan<br>Additional information: No data<br>Exposure controls   | <b>of technical systems:</b><br>designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.  |                    |
| Personal protective equipment<br>General protective and hygienic measu<br>The usual precautionary measures for ha<br>Keep away from foodstuffs, beverages an<br>Remove all soiled and contaminated clott<br>Wash hands before breaks and at the en<br>Maintain an ergonomically appropriate we<br>Breathing equipment: Use suitable resp<br>Recommended filter device for short to<br>Use a respirator with type N95 (USA) or I<br>purifying respirators are appropriate. On<br>Protection of hands:<br>Impervious gloves | anding chemicals should be followed.<br>nd feed.<br>hing immediately.<br>nd of work.<br>orking environment.<br>pirator when high concentrations are present.<br><b>term use:</b><br>PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to dete<br>ly use equipment tested and approved under appropriate government standards.<br>e for their proper condition.<br>depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. | rmine if air-      |
| 9 Physical and chemical properties  |  |                    |
| Information on basic physical and che<br>General Information<br>Appearance:<br>Form:  |  |                    |
| Odor threshold:   | Not determined.  |                    |
| Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range:<br>Sublimation temperature / start:<br>Flammability (solid, gaseous)<br>Ignition temperature:<br>Decomposition temperature:   | Not applicable.<br>Not determined<br>Not determined<br>Not determined<br>Not determined<br>Not determined<br>Not determined<br>Not determined  |                    |
| Auto igniting:<br>Danger of explosion:<br>Explosion limits:<br>Lower:<br>Upper:<br>Vapor pressure:<br>Density:<br>Relative density<br>Vapor density<br>Evaporation rate<br>Solubility in / Miscibility with<br>Water:<br>Partition coefficient (n-octanol/water):<br>Viscosity:   | Not determined.<br>Not determined<br>Not determined<br>Not applicable.<br>Not determined.<br>Not determined.<br>Not applicable.<br>Not applicable.<br>Not determined<br>Not determined.  |                    |
| 10 Stability and reactivity   |  |                    |

### 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 Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides

(Contd. on page 3)

Hydrogen bromide

# Product name: 3-Bromo-DL-phenylalanine

Page 3/4 Printing date 07/12/2016 Revision date 07/08/2016

(Contd. of page 2)

| 11 Toxicological information  |  |           |  |  |
|---|--|-----------|--|--|
| Information on toxicological effects  |  |           |  |  |
| Acute toxicity: No effects known.<br>LD/LC50 values that are relevant for classification: No data   |  |           |  |  |
| Skin irritation or corrosion: May cause irritation  |  |           |  |  |
| Eye irritation or corrosion: May cause irritation<br>Sensitization: No sensitizing effects known.   |  |           |  |  |
| Germ cell mutagenicity: No effects known.<br>Carcinogenicity: No classification data on carcinogenic properties of this mate  | erial is available from the EPA JARC NTP OSHA or ACGIH   |           |  |  |
| Reproductive toxicity: No effects known.  |  |           |  |  |
| Specific target organ system toxicity - repeated exposure: No effects know<br>Specific target organ system toxicity - single exposure: No effects known.  | vn.  |           |  |  |
| Specific target organ system toxicity - single exposure: No effects known.<br>Aspiration hazard: No effects known.<br>Subacute to chronic toxicity: No effects known.   |  |           |  |  |
| Additional toxicological information: To the best of our knowledge the acute  | e and chronic toxicity of this substance is not fully known.   |           |  |  |
| Carcinogenic categories<br>OSHA-Ca (Occupational Safety & Health Administration) Substance is not   | listed.  |           |  |  |
|   |  |           |  |  |
| 12 Ecological information   |  |           |  |  |
| Toxicity<br>Aquatic toxicity: No further relevant information available.  |  |           |  |  |
| Persistence and degradability No further relevant information available.<br>Bioaccumulative potential No further relevant information available.  |  |           |  |  |
| Mobility in soil No further relevant information available.<br>Additional ecological information:   |  |           |  |  |
| General notes:  |  |           |  |  |
| Do not allow undiluted product or large quantities to reach ground water, water<br>Avoid transfer into the environment.   | r course or sewage system.   |           |  |  |
| Results of PBT and vPvB assessment  |  |           |  |  |
| PBT: Not applicable.<br>vPvB: Not applicable.   |  |           |  |  |
| Other adverse effects No further relevant information available.  |  |           |  |  |
| 13 Disposal considerations  |  |           |  |  |
| Waste treatment methods   |  |           |  |  |
| <b>Recommendation</b> Consult state, local or national regulations to ensure proper<br>Uncleaned packagings:  | r disposal.  |           |  |  |
| Recommendation: Disposal must be made according to official regulations.  |  |           |  |  |
| 14 Transport information  |  |           |  |  |
| UN-Number<br>DOT, ADN, IMDG, IATA   | Natapplicable  |           |  |  |
| UN proper shipping name   | Not applicable   |           |  |  |
| DOT, ADN, IMDG, IATA  | Not applicable   |           |  |  |
| Transport hazard class(es)  |  |           |  |  |
| DOT, ADR, ADN, IMDG, IATA<br>Class  | Not applicable   |           |  |  |
| Packing group   |  |           |  |  |
| DOT, IMĎG, IÁTA<br>Environmentel hezerde:   | Not applicable   |           |  |  |
| Environmental hazards:<br>Special precautions for user  | Not applicable.<br>Not applicable.   |           |  |  |
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Coc  |  |           |  |  |
| Transport/Additional information:   |  |           |  |  |
| DOT   |  |           |  |  |
| Marine Pollutant (DOT):   | No   |           |  |  |
| UN "Model Regulation":  | -  |           |  |  |
| 15 Regulatory information   |  |           |  |  |
| Safety, health and environmental regulations/legislation specific for the s   | substance or mixture   |           |  |  |
| GHS label elements Not applicable<br>Hazard pictograms Not applicable   |  |           |  |  |
| Signal word Not applicable  |  |           |  |  |
| Hazard statements' Not applicable<br>National regulations   |  |           |  |  |
| This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must be used by or directly under the supervision of a technically gualified individual as defined by TSCA. This |  |           |  |  |
| 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 Substances List (NDSL).<br>SARA Section 313 (specific toxic chemical listings) Substance is not listed.  |  |           |  |  |
| California Proposition 65<br>Prop 65 - Chemicals known to cause cancer Substance is not listed.   | California Proposition 65  |           |  |  |
| Prop 65 - Developmental toxicity Substance is not listed.   |  |           |  |  |
| <b>Prop 65 - Developmental toxicity, male</b> Substance is not listed.  | Prop 65 - Developmental toxicity, female Substance is not listed.<br>Prop 65 - Developmental toxicity, male Substance is not listed. |           |  |  |
| Information about limitation of use: For use only by technically qualified individuals.<br>Other regulations, limitations and prohibitive regulations   |  |           |  |  |
| Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.   |  |           |  |  |
| The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.  |  |           |  |  |
| Substance is not listed.<br>Annex XIV of the REACH Regulations (requiring Authorisation for use) Su   | ubstance is not listed.  |           |  |  |
|   | (Contd. on   | n page 4) |  |  |

## Product name: 3-Bromo-DL-phenylalanine

(Contd. of page 3)

#### 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 07/12/2016 / - Abbreviations and accoryms: 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 CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal concentration, 50 percent LD50: Lethal does, 50 percent VPW: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) MTP: