



1 Identification Product identifier Product name: 1-Bromo-4-iodonaphthalene Stock number: H64825 CAS Number: 63279-58-3 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 Ana Aesan Thermo Fisher Scientific Chemicals, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 Fax: 800-322-4757 Fax: 800-322-4757 Email: tech@alfa.com 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. 2 Hazard(s) identification Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) ! GHS07 Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation. Hazards not otherwise classified No information known. Label elements GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms ! GHS07 Signal word Warning Hazard statements Hazard Statements H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary statements Preclautionary statements P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P405 Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification D2B - Toxic material causing other toxic effects Т Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1 Flammability = 1 1 FIRE **1** Flammability = 1 Flammability = 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: 63279-58-3 1-Bromo-4-iodonaphthalene 4 First-aid measures Description of first aid measures After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice. After skin contact Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice. After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor. After swallowing Seek medical treatment. (Contd. on page 2)

Product name: 1-Bromo-4-iodonaphthalene (Contd. of page 1) Information for doctor Most important symptoms and effects, both acute and delayed No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available. 5 Fire-fighting measures Extinguishing media Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide Hydrogen iodide (HI) Hydrogen bromide (HBr) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit. 6 Accidental release measures Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Environmental precautions: Do not allow product to reach sewage system or any water course. Methods and material for containment and cleaning up: Ensure adequate ventilation. Prevention of secondary hazards: No special measures required. Reference to other sections See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information. 7 Handling and storage Handling Precautions for safe handling Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace. 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: No special requirements. Information about storage in one common storage facility: Store in the dark. Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Protect from exposure to light. Specific end use(s) No further relevant information available. 8 Exposure controls/personal protection Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. Control parameters Components with limit values that require monitoring at the workplace: 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. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. **Breathing equipment:** Use suitable respirator when high concentrations are present. **Recommended filter device for short term use:** Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards. **Protection of hands:** Impenving cloves Impervious gloves Check protective gloves prior to each use 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: Powder Color: Off-white Odor: Odor threshold: Not determined Not determined. pH-value: Not applicable. Change in condition Melting point/Melting range: 84-89 °C (183-192 °F)

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Product name: 1-Bromo-4-iodonaph	thalene	
		(Contd. of page 2)
Flammability (solid, gaseous) Ignition temperature: Decomposition temperature:	Not determined Not determined Not determined Not determined Not determined Not determined	
Danger of explosion: Explosion limits: Lower:	Not determined. Not determined	
Vapór pressure: Density: Relative density Vapor density Evaporation rate	Not determined Not applicable. Not determined Not determined. Not applicable. Not applicable.	
Solubility in / Miscibility with Water: Partition coefficient (n-octanol/water): Viscosity:	Not determined Not determined.	
dynamic:	Not applicable. Not applicable. No further relevant information available.	
10 Stability and reactivity Reactivity No information known.		
Chemical stability Stable under recomm Thermal decomposition / conditions to Possibility of hazardous reactions Rea Conditions to avoid No further relevant Incompatible materials: Oxidizing agents Light		
Hazardous decomposition products: Carbon monoxide and carbon dioxide Hydrogen iodide (HI) Hydrogen bromide		
Reproductive foxicity: No effects known Specific target organ system toxicity - Specific target organ system toxicity - Aspiration hazard: No effects known. Subacute to chronic toxicity: No effect Additional toxicological information: 7	n irritation. ious eye irritation. wn. on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. n. repeated exposure: No effects known. single exposure: May cause respiratory irritation.	
12 Ecological information Toxicity Aquatic toxicity: No further relevant info Persistence and degradability No furthe Bioaccumulative potential No further re Mobility in soil No further relevant inform Additional ecological information: General notes:	er relevant information available. levant information available. nation available.	
Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further releval		
13 Disposal considerations Waste treatment methods Recommendation Consult state, local of Uncleaned packagings: Recommendation: Disposal must be ma	r national regulations to ensure proper disposal. ade 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	
		(Contd. on page 4) USA

Product name: 1-Bromo-4-iodonaphthalene	
	(Contd. of page 3)
Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/7	78 and the IBC Code Not applicable.
Transport/Additional information:	
DOT Marine Bellutent (DOT):	
Marine Pollutant (DOT):	No
UN "Model Regulation":	
15 Regulatory information	
Safety, health and environmental regulations/legislation GHS label elements The product is classified and labeled i Hazard pictograms	<i>n specific for the substance or mixture</i> <i>in accordance with 29 CFR 1910 (OSHA HCS)</i>
GHS07	
Signal word Warning Hazard statements H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapc	
P280 Wear protective gloves/protective clothin P305+P351+P338 IF IN EYES: Rinse cautiously with water P304+P340 IF INHALED: Remove person to fresh ai P405 Store locked up. P501 Dispose of contents/container in accorda	ing/eye protection/face protection. er for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
to research and development only. This product must be us	tion Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted ised by or directly under the supervision of a technically qualified individual as defined by TSCA. This prmulations for commercial purposes. ances List (DSL) or the Canadian Non-Domestic Substances List (NDSL). Ibstance is not listed.
Prop 65 - Chemicals known to cause cancer Substance i Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not Prop 65 - Developmental toxicity, male Substance is not Information about limitation of use: For use only by tech	e is not listed. I not listed. t listed. hnically qualified individuals.
Other regulations, limitations and prohibitive regulation Substance of Very High Concern (SVHC) according to the The conditions of restrictions according to Article 67 ar market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Author	ons the REACH Regulations (EC) No. 1907/2006. Substance is not listed. and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the prisation for use) Substance is not listed.
Chemical safety assessment: A Chemical Safety Assessr	ment has not been carried out.
information to ensure proper use and protect the health and conformance with this Material Safety Data Sheet, or in con	ent to other information gathered by them, and should make independent judgement of suitability of this Ind safety of employees. This information is furnished without warranty, and any use of the product not in Imbination with any other product or process, is the responsibility of the user.
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 Ro DOT: US Department of Emportations	Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
DOT: US Department or 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 dose, 50 percent	Route (European Agreement concerning the International Carriage of Dangerous Goods by Road))
vPvB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA)	

NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

USA