

Safety Data Sheet per OSHA HazCom 2012

1 Identification Product identifier Product name: 1-Bromo-2,4-dimethoxybenzene Stock number: A14439, L06060 CAS Number: 17715-69-4 EC number: 241-717-0 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. Inerrito Fisher Scheman C. 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 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 H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary 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. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. P405 WHMIS classification D2B - Toxic material causing other toxic effects Ţ Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1Flammàbility = 1 TIVITY 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: 17715-69-4 1-Bromo-2,4-dimethoxybenzene Identification number(s): EC number: 241-717-0 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. (Contd. on page 2)

Product name: 1-Bromo-2,4-dimethoxybenzene (Contd. of page 1) 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. 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 freatment 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 bromide (HBr) Advice for firefireture 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 Ensite adequate ventulation Environmental precautions: Do not allow material to be released to the environment without proper governmental permits. Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). 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. Prevent formation of aerosols. 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 away from oxidizing agents. Store away from strong bases. Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. 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: Not required. 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. Protection of hands: 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. 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: Liauid Colorless Color: Odor: Not determined Odor threshold: Not determined pH-value: Not determined. Change in condition 24-25 °C (75-77 °F) 143-145 °C (289-293 °F) (8mm Hg) Melting point/Melting range: Boiling point/Boiling range: (Contd. on page 3)

Product name: 1-Bromo-2.4-dimethoxvbenzene

Page 3/4 Printing date 11/24/2015 Reviewed on 01/26/2007

Flash point: Flammability (solid, gaseous) I Flammability (solid, gaseous) I Ignition temperature: I Decomposition temperature: I Danger of explosion: I Danger of explosion: I Danger of explosion: I Dunger of explosion: I Dunger of explosion: I Dupper: I Upper: I Density at 20 °C (68 °F): I Relative density I Vapor density I Stability in / Miscibility with Water: Other information I	Not determined. Not determined. No further relevant information available. ended storage conditions. be avoided: Decomposition will not occur if used and stored according to specifications. Jangerous reactions known	(Contd. of page
Flash point: Flammability (solid, gaseous) Flammability (solid, gaseous) I Stammability (solid, gaseous) I Ignition temperature: I Decomposition temperature: I Auto igniting: I Danger of explosion: I Explosion limits: I Lower: I Upper: I Vapor pressure: I Density at 20 °C (68 °F): I Relative density I Vapor density I Stability in / Miscibility with Water: Dattic: I Kinematic:	> 110 °C (> 230 °F) Not determined Not determined Not determined Not determined Not determined Product does not present an explosion hazard. Not determined Not determined Not determined Not determined. Not gettermined.	
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Carbon monoxide and carbon dioxide		
Hydrogen bromide		
Toxicological information		
Information on toxicological effects		
Acute toxicity: No effects known. LD/LC50 values that are relevant for cla	assification: No data	
Skin irritation or corrosion: Causes skir	n irritation.	
Eye irritation or corrosion: Causes serio Sensitization: No sensitizing effects know	ous eye irritation.	
Germ cell mutagenicity: No effects know	VN.	
Reproductive toxicity: No effects known	n carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.	
Specific target organ system toxicity - I	repeated exposure: No effects known. single exposure: May cause respiratory irritation.	
Aspiration hazard: No effects known.		
Subacute to chronic toxicity: No effects Additional toxicological information: To	s known. o the best of our knowledge the acute and chronic toxicity of this substance is not fully known.	
Ecological information		
Toxicity		
Aquatic toxicity: No further relevant infor Persistence and degradability No furthe	rmation available.	
Bioaccumulative potential No further rel Mobility in soil No further relevant inform	levant information available.	
Mobility in soil No further relevant inform Additional ecological information:	nation available.	
General notes:	e environment without proper governmental permits.	
Do not allow undiluted product or large qu	iantities 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 relevan	nt information available.	
Disposal considerations		
Waste treatment methods		
Recommendation Consult state, local or	national regulations to ensure proper disposal.	
Uncleaned packagings: Recommendation: Disposal must be ma	de according to official regulations.	
Transport information		
Not a hazardous material for transportatio UN-Number	n.	
DOT, IMDG, IATA	None	
UN proper shipping name DOT, IMDG, IATA	None	
Transport hazard class(es)		
DOT, ADR, IMDG, IATA Class	None	
21435	110115	(Contd. on page

	Reviewed on 01/26/2007
Product name: 1-Bromo-2,4-dimethoxybenzene	
	(Contd. of page 3)
Packing group DOT, IMDG, IATA	None
Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and	
Transport/Additional information:	Not dangerous according to the above specifications.
DOT Marine Pollutant (DOT):	No
 P304+P340 IF INHALED: Remove person to fresh air and P405 Store locked up. P501 Dispose of contents/container in accordance v National regulations This product is not listed in the U.S. Environmental Protection Age to research and development only. This product must be used by product must not be used for commercial purposes or in formulati SARA Section 313 (specific toxic chemical listings) Substance California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, formale Substance is not listed. Prop 65 - Developmental toxicity, formale Substance is not listed. Information about limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the RE The conditions of restrictions according to Article 67 and Animarket and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisatio Chemical safety assessment: A Chemical Safety Assessment to ot information to ensure proper use and protect the health and safet conformance with this Material Safety Data Sheet, or in combination 	cordance with 29 CFR 1910 (OSHA HCS) spray. e protection/face protection. everal minutes. Remove contact lenses, if present and easy to do. Continue rinsing. I keep comfortable for breathing. with local/regional/national/international regulations. gency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted y or directly under the supervision of a technically qualified individual as defined by TSCA. This tions for commercial purposes. ce is not listed. t listed. t listed. t gency y qualified individuals. EACH Regulations (EC) No. 1907/2006. Substance is not listed. nnex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the on for use) Substance is not listed.
Date or preparation / last revision 11/24/2013 / - Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances 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 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) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)	

EPA: Environmental Protection Agency (USA)

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