



1 Identification Product identifier Product name: 2-Bromopyrimidine Stock number: 41350 CAS Number: 95-60-2 EC number: 24-993-7 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. 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: 4595-60-2 2-Bromopyrimidine Identification number(s): EC number: 224-993-7 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)

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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 treatment needed No further relevant information available.

## 5 Fire-fighting measures

Extinguishing media 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: Nitrogen oxides (NOx) Carbon monoxide (CO) 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 material to be released to the environment without proper governmental permits. 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

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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 away from oxidizing agents. Further information about storage conditions:			
Keep container tightly sealed. Store in cool, dry conditions in well seale <b>Specific end use(s)</b> No further relevant	d containers. information available.		
3 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: 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 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 respiratory protective device in case of insufficient ventilation. Protection of hands: Impervious gloves Check protective gloves prior to each use for their proper condition. The selection of suitable gloses not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. Eye protection: Protective work clothing.			
9 Physical and chemical properties			
Information on basic physical and chemical properties General Information			
Appearance: Form:	Crystalline		
Color:	Light yellow		
Odor: Odor threshold:	Not determined Not determined.		
pH-value:	Not applicable.		
Change in condition Melting point/Melting range: Boiling point/Boiling range:	55-57 °C (131-135 °F) 62-64 °C (144-147 °F) (@1.5mm Hg)		

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Product name: 2-Bromopyrimidine		
Cublimation temporatura / atorti	No. 4 data marina a d	(Contd. of page 2)
Sublimation temperature / start: Flash point:	Not determined Not applicable	
Flammability (solid, gaseous) Ignition temperature:	Not determined. Not determined	
Decomposition temperature:	Not determined	
Auto igniting: Danger of explosion:	Not determined. Product does not present an explosion hazard.	
Explosion limits:		
Lower: _Upper:	Not determined Not determined	
Vapor pressure: Density:	Not applicable. Not determined	
Relative density Vapor density	Not determined. Not applicable.	
Evaporation rate	Not applicable. Not applicable.	
Solubility in / Miscibility with Water:	Not determined	
Partition coefficient (n-octanol/water) Viscosity:	): Not determined.	
dynamic: kinematic:	Not applicable. Not applicable.	
Other information	Not applicable. No further relevant information available.	
40 Stability and repativity		i
10 Stability and reactivity Reactivity No information known.		
Chemical stability Stable under recomi	imended storage conditions.	
Possibility of hazardous reactions No	to be avoided: Decomposition will not occur if used and stored according to specifications. Io dangerous reactions known	
Conditions to avoid No further relevan Incompatible materials: Oxidizing age	nt information available.	
Hazardous decomposition products: Nitrogen oxides		
Carbon monoxide and carbon dioxide		
Hydrogen bromide		
11 Toxicological information		
Information on toxicological effects Acute toxicity: No effects known.		
LD/LC50 values that are relevant for of Skin irritation or corrosion: Causes skin		
Eye irritation or corrosion: Causes se	erious eve irritation.	
Sensitization: No sensitizing effects kno Germ cell mutagenicity: No effects kno	nown.	
Carcinogenicity: No classification data Reproductive toxicity: No effects know	a on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.	
Specific target organ system toxicity	y - repeated exposure: No effects known.	
Aspiration hazard: No effects known.	y - single exposure: May cause respiratory irritation.	
Subacute to chronic toxicity: No effect Additional toxicological information:	ects known. : To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.	
12 Ecological information		i
Toxicity		
Aquatic toxicity: No further relevant inf Persistence and degradability No furth	Iformation available.	
Bioaccumulative potential No further r	relevant information available.	
Mobility in soil No further relevant infor Additional ecological information:	rmation available.	
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 assessmen	nt	
PBT: Not applicable. vPvB: Not applicable.		
Other adverse effects No further releva	ant information available.	
13 Disposal considerations		
Waste treatment methods Recommendation Consult state, local of	or national regulations to ensure proper disposal.	
Uncleaned packagings: Recommendation: Disposal must be m		
14 Transport information Not a hazardous material for transportat	ation.	
UN-Number DOT, IMDG, IATA	None	
UN proper shipping name DOT, IMDG, IATA		
DOT, IMDG, IATA Transport hazard class(es)	None	
DOT, ADR, IMDG, IATA		
Class	None	
		(Contd. on page 4)

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Product name: 2-Bromopyrimidine	
	(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	the IBC Code Not applicable.
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 k         P405       Store locked up.         P501       Dispose of contents/container in accordance w.         National regulations       All components of this product are listed in the U.S. Environmenta.         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, Substance is not listed.         Prop 65 - Developmental toxicity, male Substance is not listed.         Prop 65 - Developmental toxicity, male Substance is not listed.         Information about limitation of use: For use only by technically of Other regulations, limitations and prohibitive regulations         Substance of Very High Concern (SVHC) according to the RE/         The conditions of restrictions according to Article 67 and Ann         market and use must be observed.         Substance is not listed.         Annex XIV of the REACH Regulations (requiring Authorisation Chemical safety assessment: A Chemical Safety Assessment has         16 Other information         Employers should use this information only as a supplement to oth information to ensure proper use and protect the health and safety conformance with this Material Safety Data Sheet, or in combination	rray. protection/face protection. veral minutes. Remove contact lenses, if present and easy to do. Continue rinsing. keep comfortable for breathing. ith local/regional/national/international regulations. I Protection Agency Toxic Substances Control Act Chemical substance Inventory. is not listed. is not listed. d. qualified individuals. ACH Regulations (EC) No. 1907/2006. Substance is not listed. hex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the n for use) Substance is not listed.
Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/23/2015 / - Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of 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 dose Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent USA: 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)	
USHA: Uccupational Satety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)	USA