

Safety Data Sheet per OSHA HazCom 2012

1	Identification Product identifier Dente some A Brome 2 mothed 5 (trifluoromothed) 4H myrozolo
	Product name: <mark>4-Bromo-3-methyl-5-(trifluoromethyl)-1H-pyrazole</mark> Stock number: H50657 CAS Number:
	60061-68-9 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
	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. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification Dispose of the toxic effects
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	Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) HEALTH I Health (acute effects) = 1 Flee I Flammability = 1
	REACTIVITY I Physical Házard = 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: 60061-68-9 4-Bromo-3-methyl-5-(trifluoromethyl)-1H-pyrazole
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.
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Information for doctor

Product name: 4-Bromo-3-methyl-5-(trifluoromethyl)-1H-pyrazole

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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 Nitrogen oxides (NOx) Hydrogen fluoride (HF) Hydrogen bromide (HF) 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 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 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 context with the everage and exin 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 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: Flakes 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: Not determined Not determined Not determined Flash point: Not applicable Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Not determined. Not determined Not determined (Contd. on page 3)

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Auto igniting:	Not determined.			
Danger of explosion: Explosion limits:	Product does not present an explosion hazard.			
Lower:	Not determined			
Upper: Vapor pressure:	Not determined Not applicable.			
Density:	Not determined			
Relative density Vapor density	Not determined. Not applicable.			
Evaporation rate	Not applicable.			
Solubility in / Miscibility with Water:	Not determined			
Partition coefficient (n-octanol/water)				
Viscosity: dynamic:	Not applicable.			
kinematic:	Not applicable.			
Other information	No further relevant information available.			
10 Stability and reactivity				
Reactivity No information known.				
Chemical stability Stable under recom	mended storage conditions. to be avoided: Decomposition will not occur if used and stored according to specifications.			
Possibility of hazardous reactions Not	to be avoided: Decomposition will not occur it used and stored according to specifications.			
Conditions to avoid No further relevan	it information available.			
Incompatible materials: Oxidizing ager Hazardous decomposition products:	nts			
Carbon monoxide and carbon dioxide				
Nitrogen oxides Hydrogen fluoride				
Hydrogen fluoride Hydrogen bromide				
11 Toxicological information				
Information on toxicological effects				
Acute toxicity: No effects known.	a last of a his data			
LD/LC50 values that are relevant for of Skin irritation or corrosion: Causes skin irritation or corrosion and the second statement of the second stat				
Eve irritation or corrosion: Causes se	erious eve irritation.			
Sensitization: No sensitizing effects kni Germ cell mutagenicity: No effects kni	own. own. on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH			
Carcinogenicity: No classification data	on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH			
Reproductive toxicity: No effects know	vn. - repeated exposure: No effects known.			
Specific target organ system toxicity	- single exposure: May cause respiratory irritation.			
Aspiration hazard: No effects known. Subacute to chronic toxicity: No effect	ts known			
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.			
12 Ecological information				
Toxicity				
Aquatic toxicity: No further relevant inf	formation available.			
Persistence and degradability No furth Bioaccumulative potential No further r	her relevant information available.			
Mobility in soil No further relevant infor	rmation available.			
Additiónal ecological information: General notes:				
Do not allow material to be released to t	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	t			
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				
Recommendation. Disposar must so m				
14 Transport information Not a hazardous material for transportat	tion.			
UN-Number DOT, IMDG, IATA	None			
UN proper shipping name DOT, IMDG, IATA	None			
Transport hazard class(es)				
DOT, ADR, IMDG, IATA				
Class	None			
Packing group DOT, IMDG, IATA	None			
Environmental hazards:	Not applicable.			
Special precautions for user	Not applicable.			
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		(Contd. on page 4) USA		

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roduct name: 4-Bromo-3-methyl-5-(trifluorome	ethyl)-1H-pyrazole
	(Contd. of page 3)
Transport in bulk according to Annex II of MARPOL7 Transport/Additional information:	73/78 and the IBC Code Not applicable. Not dangerous according to the above specifications.
DOT	Not dangerous according to the above specifications.
Marine Pollutant (DOT):	No
5 Regulatory information Safety, health and environmental regulations/legisla GHS label elements The product is classified and label Hazard pictograms	ation specific for the substance or mixture led in accordance with 29 CFR 1910 (OSHA HCS)
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/v P280 Wear protective gloves/protective clo	/vapours/spray.
P405 Store locked up. P501 Dispose of contents/container in acco National regulations This product is not listed in the U.S. Environmental Protector to research and development only. This product must be product must not be used for commercial purposes or in SARA Section 313 (specific toxic chemical listings) S California Proposition 65	Substance is not listed.
Prop 65 - Chemicals known to cause cancer Substan Prop 65 - Developmental toxicity Substance is not list Prop 65 - Developmental toxicity, female Substance is Prop 65 - Developmental toxicity, male Substance is I Information about limitation of use: For use only by te	ted. is not listed. not listed. technically qualified individuals. ations to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. 57 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the
Chemical safety assessment: A Chemical Safety Asse 6 Other information Employers should use this information only as a suppler information to ensure proper use and protect the health	ressment has not been carried out. Internent to other information gathered by them, and should make independent judgement of suitability of this In and safety of employees. This information is furnished without warranty, and any use of the product not in
Conformance with this Material Safety Data Sneet, or Info Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Societ HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal cose, 50 percent LD50: Lethal dose, 50 percent VPB: 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	siety)

IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)