

Safety Data Sheet per OSHA HazCom 2012

1 Identification Product identifier Product name: 4-Amino-2,6-dibromophenol Stock number: A16134, L13469 **CAS Number:** 609-21-2 EC number: 210-185-1 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 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: 609-21-2 4-Amino-2,6-dibromophenol Identification number(s): EC number: 210-185-1 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)

Flash point:

Flammability (solid, gaseous)

## Product name: 4-Amino-2,6-dibromophenol

(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 Methemoglobinemia Indication of any immediate medical attention and special freatment 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: Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) 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. **Environmental preclations:** Do not allow material to be released to the environment will **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 rersonal 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 Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands: Impervious gloves The selection of suitable 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: Color: Powder Grey Not determined Odor: Odor threshold: Not determined pH-value: Not applicable. Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: 195-196 °C (383-385 °F)

Not determined Not determined

Not applicable Not determined.

(Contd. on page 3)

## Product name: 4-Amino-2,6-dibromophenol

Product name: 4-Amino-2,6-dibrom	ophenol	
	(Contd. of page 2)	
Ignition temperature: Decomposition temperature:	Not determined Not determined	
Auto igniting:	Not determined.	
Danger of explosion: Explosion limits:	Product does not present an explosion hazard.	
Lower: Upper:	Not determined Not determined	
Vapor pressure:	Not applicable. Not determined	
Density: Relative density	Not determined.	
Vapor density Evaporation rate	Not applicable. Not applicable.	
Solubility in / Miscibility with Water:	Not determined	
Partition coefficient (n-octanol/water) Viscosity:		
dynamic:	Not applicable.	
kinematic: Other information	Not applicable. No further relevant information available.	
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 No dangerous reactions known		
Condition's to avoid No further relevant information available. Incompatible materials: Oxidizing agents		
Hazardous decomposition products: Carbon monoxide and carbon dioxide		
Nitrogen oxides Hydrogen bromide		
11 Toxicological information		
Information on toxicological effects Acute toxicity: No effects known.		
LD/LC50 values that are relevant for on Skin irritation or corrosion: Causes su		
Eye irritation or corrosion: Causes se Sensitization: No sensitizing effects kn	prious eye irritation.	
Germ cell mutagenicity: No effects kn	own.	
Reproductive toxicity: No effects know		
Specific target organ system toxicity - 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:		
Absorption into the body may lead to the formation of methemoglobin, producing cyanosis, and marked fall in blood pressure leading to collapse, coma and possibly		
death. Onset may be delayed 2-4 hours or longer. 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 information available. Persistence and degradability No further relevant information available.		
Bioaccumulative potential No further	relevant information available.	
Mobility in soil No further relevant information available. Additional ecological information:		
General notes: Do not allow material to be released to a	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 assessment PBT: Not applicable.		
vPvB: Not applicable. <b>Other adverse effects</b> No further relevant information available.		
13 Disposal considerations Waste treatment methods		
Recommendation Consult state, local or national regulations to ensure proper disposal.		
Uncleaned packagings: Recommendation: Disposal must be m	nade according to official regulations.	
14 Transport information		
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	
	(Contd. on page 4) USA	

Product name: 4-Amino-2,6-dibromophenol		
	(Contd. of page 3)	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex II of MARPOL73/78 an	Id the IBC Code Not applicable.	
Transport/Additional information:	Not dangerous according to the above specifications.	
DOT Marine Pollutant (DOT):	No	
15 Regulatory information		
Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms		
GHS07		
GHS07         Signal word Warning Hazard statements         H315 Causes skin irritation.         H315 Causes server irritation.         H315 Causes server irritation.         H325 May cause respiratory irritation.         Precautionary statements         Wear protective gloves/protective clothing/eye protection/face protection.         P261       Wear protective gloves/protective clothing/eye protection/face protection.         P305+P351+P338 IF INLEYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.         P305+P351+P338 IF INLEXES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.         P305+P351+P338 IF INLEYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.         P305+P351+P338 IF INLEYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.         P305+P351+P338 IF INLEYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.         P305+P351+P338 IF INLEYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.         P405       Store locked up.         P401       Dispose of contents/container in accordance with local/regional/national/international regulations.         Naticomponents of thits product are listed in t		
information to ensure proper use and protect the health and safe	other information gathered by them, and should make independent judgement of suitability of this ety of employees. This information is furnished without warranty, and any use of the product not in ation with any other product or process, is the responsibility of the user.	

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