

Revision number: 1 Revision date: 07/06/2018

1. IDENTIFICATION

Product name: Product code:

Product use: **Restrictions on use:**

Company: TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Skin Corrosion/Irritation [Category 2] WHMIS 2015: Eye Damage/Irritation [Category 2A] Flammable Liquids [Category 4] Signal word: Warning! Hazard Statement(s): Combustible liquid Causes skin irritation Causes serious eye irritation Pictogram(s) or Symbol(s): Precautionary Statement(s): [Prevention] Keep away from flames and hot surfaces. - No smoking. Wash hands and face thoroughly after handling. Wear protective gloves, eye protection. If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice or attention. [Response] Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. [Storage] Store in a well-ventilated place. Keep cool. [Disposal] Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40 CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

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SAFETY DATA SHEET

4-Bromo-2-fluorotoluene

For laboratory research purposes.

Not for drug or household use.

B1716

Hazards not otherwise classified: [HNOC]

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Components: Percent: CAS RN: Molecular Weight: **Chemical Formula:**

Substance 4-Bromo-2-fluorotoluene >97.0%(GC) 51436-99-8 189.03 C7H6BrF

None.

Emergency telephone number:

Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) **Responsible department:** TCI America Environmental Health Safety and Security +1-503-286-7624

4. FIRST-AID MEASURES				
Description of first aid measures				
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. skin irritation or rash occurs: Get medical advice/attention.			
Skin contact:				
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.			
Ingestion:	Get medical advice/attention if you feel unwell. Rinse mouth.			
Symptoms/effects:				
Acute:	Redness.			
Delayed:	No data available			
Indication of any immediate medical attended to the second	ention:			
Notes to physician: No data available				
5. FIRE-FIGHTING MEASURES				
Suitable extinguishing media: Unsuitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide. Solid streams of water			
Specific hazards arising from the chemical:	Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.			
Hazardous combustion products: Other specific hazards:	These products include: Carbon oxides Halogenated compounds WARNING: Highly toxic HF gas is produced during combustion.			
Advice for firefighters:	Wear self-contained breathing apparatus if possible.			
6. ACCIDENTAL RELEASE MEASU	RES			
Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.			
Environmental precautions: Methods and materials for containment and cleaning up:	Prevent product from entering drains.			
Prevention of secondary hazards:	disposed of, in accordance with appropriate laws and regulations. Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.			
7. HANDLING AND STORAGE				
Precautions for safe handling:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from flames and hot surfaces. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling.			
	Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid contact with skin, eyes and clothing.			
Conditions for safe storage, including a Storage conditions:	ny incompatibilities Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store away from incompatible materials such as oxidizing agents.			
Packaging material:	Comply with laws.			
8. EXPOSURE CONTROLS / PERSC	DNAL PROTECTION			
Appropriate engineering controls:	Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eve bath.			

Personal protective equipment	
Respiratory protection:	Vapor respirator. Follow local and national regulations.
Hand protection:	Protective gloves.
Eye protection:	Safety glasses. A face-shield, if the situation requires.
Skin and body protection:	Protective clothing. Protective boots, if the situation requires.

shower and eye bath.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Colour: Odour: Odor threshold: Odour threshold:	Liquid Clear Colorless - Pale yellow No data available No data available No data available		
Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic viscosity: Log Pow:	No data available 100°C /6.7kPa (212°F) No data available 1.51 No data available No data available	pH: Vapour pressure: Vapour density: Dynamic Viscosity: Evaporation rate(Butyl Acetate=1):	No data available No data available. No data available No data available No data available
Flash point: Flammability(solid, gas):	76°C (169°F) No data available	Autoignition temperature: Flammability or explosive limits: Lower: Upper:	No data available No data available No data available
Solubility(ies): [Water] [Other solvents]	No data available No data available		

10. STABILITY AND REACTIVITY

Reactivity: Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: No data available Stable under proper conditions. No special reactivity has been reported. Open flame Oxidizing agents Carbon dioxide, Carbon monoxide, Hydrogen fluoride, Hydrogen bromide

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: No data available

Skin corrosion/irritation: No data available

Serious eye damage/irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

IARC: No data available

Reproductive toxicity: No data available

Target organ(s):

No data available

NTP:

No data available

OSHA:

No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity:	
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Persistence / degradability:	No data available
Bioaccumulative potential (BCF): Mobility in soil	No data available
Log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law (PaM ³/mol):	No data available
13. DISPOSAL CONSIDERATIONS	
Disposal of product:	Recycle to process if possible. It is the generator's responsibility to comply with Federal,

Disposal of product: Disposal of container: Other considerations:	Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil. Dispose of as unused product. Do not re-use empty containers. Observe all federal, state and local regulations when disposing of the substance.	
14. TRANSPORT INFORMATION		
DOT (US)	Non-hazardous for transportation.	
ΙΑΤΑ	Non-hazardous for transportation.	
IMDG	Non-hazardous for transportation.	

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

(i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.

(ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet.

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US Federal Regulations

CERCLA Hazardo		and Reportable Quantity:		
SARA 313:		Not Listed		
SARA 302:		Not Listed		
State Regulation	<u>s</u>			
State Right-to-Kr	now			
Massachuse	tts	Not Listed		
New Jersey		Not Listed		
Pennsylvania	a	Not Listed		
California Propos	sition 65:	Not Listed		
Other Information	<u>n</u>			
NFPA Rating:			HMIS Classification:	
Health:	2		Health:	
Flammability:	2		Flammability:	
Instability:	0		Physical:	
International Inve	entories			
EC-No:		257-201-3		

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16. OTHER INFORMATION

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TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.