

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: Eye Damage/Irritation [Category 1] WHMIS 2015: Corrosive to Metals [Category 1] Skin Corrosion/Irritation [Category 1B] Signal word: Danger! Hazard Statement(s): May be corrosive to metals Causes severe skin burns and eye damage Pictogram(s) or Symbol(s): Keep only in original container. Do not breathe dusts or mists. Wash hands and face thoroughly after [Prevention] handling. Wear protective gloves, protective clothing, face protection. [Response] If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a poison center or doctor. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor. Absorb spillage to prevent material damage. [Storage] Store in corrosive resistant bottle or metal container with a resistant inner liner. Store locked up. [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.).

Hazards not otherwise classified: [HNOC]

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Heptafluorobutyric Acid (ca. 0.5mol/L in Water) [Ion-Pair Reagent for LC-MS] A5713

For laboratory research purposes. Not for drug or household use.

TCI AMERICA

SAFETY DATA SHEET

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

Precautionary Statement(s):

None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture:	Mixture
Components:	Heptafluorobutyric Acid (ca. 0.5mol/L in Water) [Ion-Pair Reagent for LC-MS]
Percent:	
CAS RN:	375-22-4
Molecular Weight:	214.04
Chemical Formula:	C4HF7O2
Synonyms:	HFBA (ca. 0.5mol/L in Water), IPC-PFFA-4 (ca. 0.5mol/L in Water), Perfluorobutyric Acid (ca.
	0.5mol/L in Water)
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. Immediately call a
Skin contact:	POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.
Skill contact.	Immediately call a POISON CENTER or doctor/physician.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
	Continue rinsing.Immediately call a POISON CENTER or doctor/physician.
Ingestion:	Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.
Symptoms/effects:	
Acute:	Pain. Redness.
Delayed:	No data available
Delayed.	NO GALA AVAIIADIE
Indication of any immediate medical atte	ention:
Not available.	
Notes to physician:	
No data available	
5. FIRE-FIGHTING MEASURES	
Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.
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:	These products include: Carbon oxides Halogenated compounds
Other specific hazards:	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:	Prevent product from entering drains.
Methods and materials for containment	
and cleaning up:	amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly
	disposed of, in accordance with appropriate laws and regulations.
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. 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. Use corrosive resistant equipment.
Conditions for safe storage, including a	ny incompatibilities
Storage conditions:	Keep container tightly closed. Store in a cool and dark place.
	Store locked up.
Pookoging motoricl	Store away from incompatible materials such as oxidizing agents.
Packaging material:	Comply with laws. Keep only in original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls:	Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust. Also install safety shower and eye bath.
Personal protective equipment	
Respiratory protection:	Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
Hand protection:	Impervious gloves.
Eye protection:	Safety goggles. A face-shield, if the situation requires.
Skin and body protection:	Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Colour: Odour: Odor threshold: Odour threshold:	Liquid Clear Colorless No data available No data available No data available		
Melting point/freezing point:	No data available	pH:	No data available
Boiling point/range:	No data available	Vapour pressure:	No data available.
Decomposition temperature:	No data available	Vapour density:	No data available
Relative density:	No data available	Dynamic Viscosity:	No data available
Kinematic viscosity:	No data available		
Log Pow:	No data available	Evaporation rate(Butyl Acetate=1):	No data available
Flash point: Flammability(solid, gas):	No data available No data available	Autoignition temperature: Flammability or explosive limits:	No data available
		Lower:	No data available
		Upper:	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: Incompatible materials: Hazardous decomposition products:

No data available Stable under proper conditions. No special reactivity has been reported. Oxidizing agents, Bases Carbon dioxide, Carbon monoxide, Hydrogen fluoride 11. TOXICOLOGICAL INFORMATION

RTECS Number: ET4025000

Acute Toxicity: ipr-mus LD50:68 uL/kg		ivn-rbt LD:>10 uL/kg		
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	NTP:	No data available	OSHA:	No data available
Reproductive toxicity: No data available				
Target organ(s):	No data available			
12. ECOLOGICAL INFORMATION				
Ecotoxicity: Fish: Crustacea: Algae:	No data available No data available No data available			
Persistence / degradability: Bioaccumulative potential(BCF): Mobility in soil	No data available No data available			
Log Pow: Soil adsorption (Koc): Henry's Law (PaM ³/mol):	No data available No data available No data available			
13. DISPOSAL CONSIDERATIONS				
Disposal of product:	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			
Disposal of container: Other considerations:	Dispose of as unus	r the environment, drains, water way sed product. Do not re-use empty co I, state and local regulations when c	ontainers.	

14. TRANSPORT INFORMATION

<u>DOT (US)</u> UN number: UN3265	Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s	Class or Division: 8 Corrosive material	Packing Group:
IATA UN number: UN3265	Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s	Class or Division: 8 Corrosive material	Packing Group: II
IMDG UN UN3265 numb er:	Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s	Class or Division: 8 Corrosive material	Packing Group: II
EmS number:	F-A, S-B		

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.): This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regu CERCLA Hazardo SARA 313: SARA 302:	lations_ ous substance and Re	oortable Quantity: Not Listed Not Listed		
State Regulations State Right-to-Kn Massachuse New Jersey Pennsylvania	now tts	Not Listed Not Listed Not Listed		
California Propos		Not Listed		
Other Information NFPA Rating: Health: Flammability: Instability:	n 3 0 0		HMIS Classification: Health: Flammability: Physical:	3 0 0
International Inve Canada: NDSL EC-No:		On NDSL 206-786-3		

16. OTHER INFORMATION

Revision date: 07/06/2018

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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.