

Revision number: 3 Revision date: 08/18/2015

IDENTIFICATION 1.

Product name: Product code:

Isopropylsulfonyl Chloride

Product use: Restrictions on use:

Company:

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2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Eye Damage/Irritation [Category 1] Flammable Liquids [Category 4] Corrosive to Metals [Category 1]

Signal word:

Danger!

Hazard Statement(s):

Causes serious eye damage Causes severe skin burns and eye damage Combustible liquid May be corrosive to metals

Skin Corrosion/Irritation [Category 1C]

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention]

[Response]

[Storage]

[Disposal]

Do not breathe dusts or mists. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, eye protection and face protection. Wear eye protection. Wear face protection (full length face shield). Keep away from heat, sparks, open flames or other hot surfaces. - No smoking. Wear protective gloves, eye protection and face protection. Keep only in original container. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. 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. In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish. Absorb spillage to prevent material damage. Store locked up. Store in well-ventilated place. Keep cool. Store in corrosive resistant container with a resistant inner liner.

Dispose of contents and container in accordance with US EPA guidelines for the classification and

determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

Hazards not otherwise classified: [HNOC] May develop pressure

Not for drug or household use.

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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

10291

For laboratory research purposes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Substance Components: IsopropyIsult	fonyl Chloride
Percent: >95.0%(GC)	1
CAS Number: 10147-37-2	
Molecular Weight: 142.60	
Chemical Formula: C ₃ H ₇ ClO ₂ S	

4. FIRST-AID MEASURES

Inhalation:	Immediately call a poison center or doctor. Effects of exposure (inhalation) to substance may be delayed. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Skin contact:	For severe burns, immediate medical attention is required. Immediately call a poison center or doctor. Remove and wash contaminated clothing before re-use. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Eye contact:	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Eye contact with vapors or substance may cause severe injury, burns, or death. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Ingestion:	Do not induce vomiting with out medical advice. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Symptoms/effects:	
Acute: Delayed:	Pain. Redness. No data available
Immediate medical attention:	WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is corrosive. For severe burns, immediate medical attention is required. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
5. FIRE-FIGHTING MEASURES	
Suitable extinguishing media:	Dry chemical, CO_2 or water spray. Consult with local fire authorities before attempting large scale fire fighting operations.

Specific hazards arising from the chemical

Hazardous combustion products:These products include: Carbon oxides Sulfur oxides Halogenated compoundsOther specific hazards:WARNING: Highly toxic HCl gas is produced during combustion.

Special precautions for fire-fighters:

Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient. Do not use straight streams. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Move containers from fire area if you can do it without risk. **Special protective equipment for fire-fighters:**

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Use sparkproof tools and explosion-proof equipment. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. **TCI AMERICA**

6. ACCIDENTAL RELEASE MEASURES			
Personal protective equipment:	Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).		
Emergency procedures:	Isolate area until gas has dispersed. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.		

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). All equipment used when handling the product must be grounded. Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

7. HANDLING AND STORAGE	
Precautions for safe handling:	Do NOT breath gas, fumes, vapor, or spray. Manipulate under an adequate fume hood. Avoid contact with skin and eyes. Keep away from heat and sources of ignition. Use explosion-proof equipment. Use only non-sparking hand tool when handling this product. Ground all equipment containing material. Take measures to prevent build up of electrostatic charge. May corrode metallic surfaces. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition.
Conditions for safe storage: Storage incompatibilities:	Keep away from sources of ignition. Store and use away from heat, sparks, open flame, or any other ignition source. Store in corrosive resistant container with a resistant inner liner. Keep containers tightly closed in a cool, well-ventilated place. Store locked up. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store under inert gas (e.g. Argon). Moisture sensitive. Bases, Combustible substances, Store away from oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits:

No data available

Appropriate engineering controls:

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment	
Respiratory protection:	Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.
Hand protection:	Wear protective gloves.
Eye protection:	Splash goggles.
Skin and body protection:	Lab coat.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Color: Odor: Odor threshold:

Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic Viscosity:

Partition coefficient: n-octanol/water (log Pow) Liquid Clear Colorless - Pale yellow No data available No data available

No data available 83°C (181°F)/3.3kPa No data available 1.28 No data available No data available pH: Vapor pressure: Vapor density: Dynamic Viscosity:

Evaporation rate: (Butyl Acetate = 1) No data available 2.1kPa/25°C 4 No data available

No data available

Isopropylsulfonyl Chloride

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9. PHYSICAL AND CHEMI Flash point:		(187°F)	Autoigniti	on tempe	erature:	463°C (865°F)
Flammability (solid, gas):		ata available			plosive limits:	
anniability (solid, gas).				.ower:	No data availat	
			L	.ower.	no uala avallar	Je
			ι	Jpper:	No data availat	ble
Solubility(ies):						
10. STABILITY AND REAC	TIVITY					
Reactivity:		Corrodes in contac	ct with metals.			
Chemical Stability:		Moisture sensitive				
Possibility of Hazardous Read	tions:	In use, may form f	lammable/explosive va	por-air mi	xture.	
Conditions to avoid:			ure. Moisture sensitive.			
ncompatible materials:		Alcohols, Strong b	ases, Strong oxidizing	agents, V	Vater	
lazardous Decomposition Pr	oducts:	No data available		•		
11. TOXICOLOGICAL INFO		AI				
T. TOXICOLOGICAL INFC		<u>v</u>				
Acute Toxicity:						
No data available						
Skin corrosion/irritation:						
No data available						
Serious eye damage/irritation						
Respiratory or skin sensitizat	ion:					
No data available						
Germ cell mutagenicity: No data available						
Carcinogenicity:						
No data available						
IARC: No data available	e	NTP:	No data available		OSHA:	No data available
Reproductive toxicity:						
No data available						
Routes of Exposure:		Inhalation Eve co	ntact, Ingestion, Skin c	ontact		
Symptoms related to exposure	e:					
	s. Skin cont		ammation; characterize	d by itchi	ng, scaling, reddei	ning, or occasionally blistering. Eye
Potential Health Effects:	hage of bill					
No specific information available	e skin and c	we contact may recu	It in irrigtation May be	harmfuli	f inhaled or indext	ed
arget organ(s):	, SKILL ALLU E	No data available	ni in iniaiauon. May De	nannull	i initialeu ur irigest	συ.
0 0 ()						
12. ECOLOGICAL INFORM	IATION					
Ecotoxicity						
Fish:		No data available				
Crustacea:		No data available				
Algae:		No data available				
Persistence and degradability	:	No data available				
Piezooumulative notential (P(•	No data available				

 Persistence and degradability:
 No data available

 Bioaccumulative potential (BCF):
 No data available

 Mobillity in soil:
 No data available

 Partition coefficient:
 No data available

 n-octanol/water (log Pow)
 Soil adsorption (Koc):

 Soil adsorption (Koc):
 No data available

 Henry's Law:
 No data available

 constant (PaM³/mol)
 Henry's Law:

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS						
Disposal of product: Recycle to rules and rules and rules chemical in assistance regulatory Waste are water ways Disposal of container: Dispose of		rules and regulations chemical incinerator assistance but does regulatory compliand Waste are listed in 4 water ways, or the so Dispose of as unuse	f as unused product. Do not re-use empty containers.			
Other consideration	IS:	Observe all federal,	state and local regulations whe	en disposing of the substance.		
DOT (US) UN number: UN3265	Proper Shipping Na Corrosive liquid, acid		Class or Division: 8 Corrosive material	Packing Group: III		
IATA UN number: UN3265	Proper Shipping Na Corrosive liquid, acid		Class or Division: 8 Corrosive material	Packing Group:		
IMDG UN number: UN3265	Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.		Class or Division: 8 Corrosive material	Packing Group:		
EmS number:		F-A, S-B				

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.

HMIS Classification:

Health: Flammability:

Physical:

0

2

0

(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.

US Federal Regulations

CERCLA Hazardous substance and Reportable Quantity:			
SARA 313:	Not Listed		
SARA 302:	Not Listed		

State Regulations

State Right-to-Know

Massachusetts	Not Listed
New Jersey	Not Listed
Pennsylvania	Not Listed
California Proposition 65:	Not Listed

Other Information

NFPA Rating:

Health:	0
Flammability:	2
Instability:	0

International Inventories

WHMIS hazard class:

EC-No:

E: Corrosive material. B3: Combustible Liquid. 233-415-2

16. OTHER INFORMATION

16. OTHER INFORMATION

Revision date: 08/18/2015 Revision number: 3

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 gogles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.