



SAFETY DATA SHEET

Preparation Date: 01/15/2015 Product identifier Revision Date: Not Applicable

Revision Number: Not Applicable

Product code:I13Product Name:Iso

I1326 Isopropyl Crotonate

Other means of identification

Synonyms: CAS #: RTECS # CI#: Crotonic Acid Isopropyl Ester 6284-46-4 Not available Not available

Recommended use of the chemical and restrictions on use

Recommended use: Uses advised against	No information available. No information available
Supplier:	Spectrum Chemical Mfg. Corp
	14422 South San Pedro St.
	Gardena, CA 90248
	(310) 516-8000
Order Online At:	https://www.spectrumchemical.com
Emergency telephone number	Chemtrec 1-800-424-9300
Contact Person:	Martin LaBenz (West Coast)
Contact Person:	Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Flammable liquids	Category 3

Label elements

Warning

Hazard statements

Causes skin irritation Causes serious eye irritation Flammable liquid and vapor



Hazards not otherwise classified (HNOC) Not Applicable

Other hazards Not available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Keep away from heat/sparks/open flames/hot surfaces. — No smoking Keep container tightly closed Ground/bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting/ .? /equipment Use only non-sparking tools Take precautionary measures against static discharge

Precautionary Statements - Response

Specific treatment (see .? on this label) In case of fire: Use CO2, dry chemical, or foam to extinguish. 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/attention. If skin irritation occurs: Get medical advice/attention IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Isopropyl Crotonate 6284-46-4	6284-46-4	100	*

4. FIRST AID MEASURES

First aid measures General Advice:	Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126)	
Skin Contact:	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.	
Eye Contact:	Flush eye with water for 15 minutes. Get medical attention.	
Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.	
Ingestion:	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.	
Most important symptoms and effects, both acute and delayed		
Symptoms	Causes eye irritation. Eye contact may result in redness or pain. Causes skin irritation. Skin contact may result in redness, pain, inflammation, itching, scaling.	
Indication of any immediate medical attention and special treatment needed		
Notes to Physician:	Treat symptomatically	

Protection of first-aiders First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media	
Suitable Extinguishing Media:	Carbon dioxide (CO2). Dry chemical. Water spray. Alcohol- resistant foam.
Unsuitable Extinguishing Media:	Do not use a solid (straight) water stream as it may scatter and spread fire.
Specific hazards arising from the chemical	
Hazardous Combustion Products:	Carbon oxides
Specific hazards:	Flammable May be ignited by heat, sparks or flames Container explosion may occur under fire conditions or when heated Vapor may travel considerable distance to source of ignition and flash back Vapors may form explosive mixtures with air Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks)
Special Protective Actions for Firefighters	
Specific Methods:	Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out. Dike fire-control water for later disposal; do not scatter the material.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:	Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.	
Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.	
Methods and material for containment and cleaning up		
Methods for containment	Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.	
Methods for cleaning up	Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.	
7. HANDLING AND STORAGE		

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Store in a segrated and approved area.

Incompatible Materials:

Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Isopropyl Crotonate	None	None	None	None
6284-46-4				

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Isopropyl Crotonate	None	None	None	None
6284-46-4				

Australia and Mexico

Components	Australia	Mexico
Isopropyl Crotonate 6284-46-4	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection:	Goggles. Safety glasses with side-shields.
Skin and body protection:	Long sleeved clothing. Chemical resistant apron. Gloves.
Respiratory protection:	Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
Hygiene measures:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical state: Liquid

Odor: No information available

Formula: C7H12O2

Flashpoint (°C/°F): No information available.

Upper Explosion Limit (%): No information available

Melting point/range(°C/°F): No information available

Bulk density: No information available

Density (g/cm3): 0.89

VOC content (g/L): No information available

Viscosity: No information available

Reactive with oxidizing agents

Reactivity

Appearance: Liquid.

Taste No information available

Flammability: No information available

Flash Point Tested according to: Not available

Autoignition Temperature (°C/°F): No information available

Boiling point/range(°C/°F): 147°C/297°F

Specific gravity: No information available

Evaporation rate: No information available

Odor threshold (ppm): No information available

Miscibility: No information available Color: Colorless.

Molecular/Formula weight: 128.17

Flash point (°C): No data available

Lower Explosion Limit (%): No information available

pH: No information available

Decomposition temperature(°C/°F): No information available

Vapor pressure @ 20°C (kPa): No information available

Vapor density: No information available

Partition coefficient (n-octanol/water): No information available

Solubility: No information available

10. STABILITY AND REACTIVITY

Chemical stability Stability:	Stable under recommended storage conditions
Possibility of Hazardous Reactions:	In use, may form flammable/explosive vapor-air mixture
Conditions to avoid:	Heat. Ignition sources. Incompatible materials.
Incompatible Materials:	Oxidizing agents.
Hazardous decomposition products:	Carbon oxides.
Other Information	

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure: Eyes. Ingestion. Inhalation. Skin.

Component Information

Isopropyl Crotonate - 6284-46-4

LD50/oral/rat = No information available LD50/oral/mouse = No information available LD50/dermal/rat = No information available LD50/dermal/rabbit = No information available LC50/inhalation/rat = No information available LC50/inhalation/mouse = No information available Other LD50 or LC50information = No information available

Product Information

LD50/oral/rat = VALUE- Acute Tox Oral = No information available

LD50/oral/mouse = Value - Acute Tox Oral = No information available

LD50/dermal/rabbit VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat VALUE-Vapor = No information available VALUE-Gas = No information available VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse VALUE-Vapor = No information available VALUE - Gas = No information available VALUE - Dust/Mist = No information available

Symptoms

Skin Contact:	Causes skin irritation.
Eye Contact:	Causes serious eye irritation.
Inhalation Ingestion	May cause irritation of respiratory tract. Health injuries are not known or expected under normal use.
Aspiration hazard	No information available
Delayed and immediate effects a	s well as chronic effects from short and long-term exposure
Chronic Toxicity	No information available
Sensitization:	No information available
Mutagenic Effects:	No information available

Carcinogenic effects:

Components	ACGIH - Carcinogens	IARC	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Isopropyl Crotonate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity	No data is available
Reproductive Effects:	No information available
Developmental Effects:	No information available
Teratogenic Effects:	No information available
Specific Target Organ Toxicity	
STOT - single exposure	No information available
STOT - repeated exposure	No information available
Target Organs:	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects:	No data available.		
Persistence and degradability:	No information available		
Bioaccumulative potential:	No information available		
Mobility:	No information available		

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Isopropyl Crotonate	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No:	N
Proper Shipping Name:	N
Hazard Class:	N
Subsidiary Risk:	No

Not Regulated No information available No information available No information available

Packing Group:	None
ERG No:	No information available
Marine Pollutant	No data available
DOT RQ (lbs):	No information available

TDG (Canada)

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Description:	No information available

ADR

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Packing Group:	No information available
Subsidiary Risk:	No information available
Classification Code:	No information available
Description:	No information available
CEFIC Tremcard No:	No information available

IMO / IMDG

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Description:	No information available
IMDG Page:	No information available
Marine Pollutant	No information available
MFAG:	No information available
Maximum Quantity:	No information available

RID

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Classification Code:	No information available
Description:	No information available

ICAO

UN-No: Proper Shipping Name: Hazard Class: Subsidiary Risk: Packing Group: Description:

ΙΑΤΑ

UN-No: Proper Shipping Name: Hazard Class: Subsidiary Risk:

No information available Not Regulated

No information available

No information available

No information available

No information available

Not Regulated

No information available No information available No information available

14. TRANSPORT INFORMATION

Packing Group: Description: No information available No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Isopropyl Crotonate	Not Listed	Not present	Not present	Present (2)- 966	Not present	Present	Not present

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	· · · · · · · · · ·	Female Reproductive Toxicity:
Isopropyl Crotonate	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous	Section 302 Extremely	Section 302 Extremely	Section 313 -	Section 313 - Reporting
-	Substances and their	Hazardous	Hazardous	Chemical Category	de minimis
	Reportable Quantities	Substances and TPQs	Substances and RQs		
Isopropyl Crotonate	None	None	None	None	None

U.S. TSCA

•	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Isopropyl Crotonate	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

B2 Flammable liquid D2B Toxic materials

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Components	Canada (DSL)	Canada (NDSL)
Isopropyl Crotonate	Not Listed	Not Listed

Components CEPA Schedule I - Toxic Substances		CEPA - 2010 Greenhouse Gases Subject to Manditory	
		Reporting	

EU Classification

R-phrase(s) not determined (not applicable)

<u>S -phrase(s)</u> none

Components	Classification	Concentration Limits:	Safety Phrases
Isopropyl Crotonate		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

None.

16. OTHER INFORMATION

16. OTHER INFORMATION

Preparation Date: Revision Date: Prepared by:

Disclaimer:

01/15/2015 Not Applicable Sonia Owen

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet