

Safety Data Sheet

Iso-octane/Acetone Chromatography Solvent

CAROLINA[®]
www.carolina.com

Section 1

Product Description

Product Name: Iso-octane/Acetone Chromatography Solvent
Recommended Use: Science education applications
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2

Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

GHS Classification:

Aspiration Hazard Category 1, Hazardous to the aquatic environment - Acute Category 1, Hazardous to the aquatic environment - Chronic Category 1, Flammable Liquid Category 2, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

Acute Toxicity Inhalation Vapor Contains 100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Dust/Mist Contains 100 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3

Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
2,2,4-Trimethyl-pentane	540-84-1	62.5
Acetone	67-64-1	37.5

Section 4

First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eyes: 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.
Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Section 5

Firefighting Procedures

Extinguishing Media: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

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Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Fire and/or Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away. Keep upwind of the spilled material and isolate exposure.

Contain the discharged material. Do not flush spill to drain. Block any potential routes to water systems. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area. Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area. Collect spillage.

Section 7 Handling and Storage

Handling: 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. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Storage: Keep container tightly closed. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
2,2,4-Trimethyl-pentane	300 ppm TWA	N/A	N/A	N/A
Acetone	500 ppm TWA	750 ppm STEL	1000 ppm TWA; 2400 mg/m3 TWA	N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use. Good general room ventilation should be sufficient to control airborne contaminants to safe levels.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: No respiratory protection required under normal conditions of use.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Nitrile

Section 9 Physical Data

Formula: This product is a mixture.

Molecular Weight:

Appearance: Colorless Liquid

Odor: Moderate Characteristic

Odor Threshold: No data available

pH: No data available

Melting Point: = -107 C

Vapor Pressure: 223 hPa (175 mm Hg)

Evaporation Rate (BuAc=1): No data available

Vapor Density (Air=1): 0.7275 g/cm3

Specific Gravity: No data available

Solubility in Water: Practically Insoluble

Log Pow (calculated): No data available

Autoignition Temperature: No data available

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Boiling Point: 56 C
Flash Point: -20 C
Flammable Limits in Air: 1.1 vol % 13.0 vol %

Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: No data available

Section 10 Reactivity Data

Reactivity: No data available
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Temperatures above flash point in combination with sparks, open flames, or other sources of ignition.
Incompatible Materials: Strong oxidizing agents, Caustics (bases), Peroxides, Strong acids, Oxidizing materials, Halogens
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry: Ingestion, skin and eye contact., Inhalation, Ingestion, and Skin contact.
Symptoms (Acute): Eye disorders
Delayed Effects: No data available

Acute Toxicity: Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
2,2,4-Trimethyl-pentane	540-84-1	Oral LD50 Rat > 5000 mg/kg	Inhalation LC50 Rabbit > 2000 mg/kg	Inhalation LC50 (4h) Rat > 33.52 MG/L
Acetone	67-64-1	Oral LD50 Mouse 3000 mg/kg	Dermal LD50 Rabbit 20000 mg/kg	Inhalation LC50 (8h) Rat 50.1 MG/L

Carcinogenicity: Chemical Name	CAS Number	IARC	NTP	OSHA
Acetone	67-64-1	Not listed	Not listed	Not listed

Chronic Effects:
Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: Central Nervous System, Cardiovascular system
Chronic: Male Reproductive System

Section 12 Ecological Data

Overview: Severe ecological hazard. This product may be toxic to plants and/or wildlife.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: Biodegrades quickly.
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Acetone	67-64-1	96 HR LC50 LEPOMIS MACROCHIRUS 8300 MG/L 96 HR LC50 ONCORHYNCHUS MYKISS 4.74 - 6.33 ml/l 48 HR EC50 DAPHNIA MAGNA 12600 - 12700 MG/L

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

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Section 14

Transport Information

Ground - DOT Proper Shipping Name:

UN1993; Flammable Liquids, n.o.s. (Octanes, Acetone); Marine pollutant.

Air - IATA Proper Shipping Name:

UN1993; Flammable Liquids, n.o.s. (Octanes, Acetone); Marine pollutant.

Section 15

Regulatory Information

TSCA Status:

All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
2,2,4-Trimethyl-pentane	540-84-1	No	No	1000 lb final RQ; 454 kg final RQ	No	No
Acetone	67-64-1	No	No	5000 lb final RQ; 2270 kg final RQ	No	No

Section 16

Additional Information

Revised: 02/13/2015**Replaces: None****Printed: 04-22-2015**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health