

Chromatography Solvent (1:1)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Chromatography Solvent (1:1)

Synonyms/Generic Names: None

SDS Number: 184.00

Product Use: For Educational Use Only

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information Contact: Ward's Science
5100 West Henrietta Rd.
PO Box 92912-9012
Rochester, NY 14692
(800) 962-2660 (Monday-Friday 7:30-7:00 Eastern Time)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Flammable liquid, Target organ effect, Irritant

Target Organs: Central nervous system, Heart, Lungs, Liver, Kidney, Eyes, Skin

Signal Word: Danger

Pictograms:



GHS Classification:

Acute toxicity, Oral	Category 5
Acute toxicity, Dermal	Category 5
Aspiration hazard	Category 1
Acute aquatic toxicity	Category 2
Flammable liquids	Category 2
Skin irritation	Category 2
Eye irritation	Category 2A
Specific target organ toxicity-single exposure	Category 3
Chronic aquatic toxicity	Category 2

GHS Label Elements, including precautionary statements:**Hazard Statements:**

H303+H313	May be harmful if swallowed or in contact with skin.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness
H401	Toxic to aquatic life.
H225	Highly flammable liquid and vapor.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements:

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
H331	Do NOT induce vomiting.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P273	Avoid release to the environment.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

Potential Health Effects

Eyes	May cause eye irritation
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Ingestion	May be harmful if swallowed. Aspiration hazard if swallowed – can enter lungs and cause damage.

NFPA Ratings

Health	1
Flammability	3
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	1
Fire	3
Reactivity	0
Personal	H

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Petroleum Ether	50	8032-32-4	232-453-7	Mixture	N/A
Acetone	50	67-64-1	200-662-2	C ₃ H ₆ O	58.08 g/mol

4. FIRST-AID MEASURES

Eyes	In case of eye contact, rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is a flammable liquid. Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Use appropriate media for adjacent fire. Cool unopened containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section). Keep away from heat/sparks/open flame/hot surface. No smoking. Vapors can travel to a source of ignition and flash back. Containers may explode in a fire. Cool containers from a distance using water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols. Ground all equipment containing this material. Keep away from sources of ignition. No smoking. Take measure to prevent the buildup of electrostatic charge.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Store between 55-100°F for product stability.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
Acetone	2400 mg/m ³	PEL	OSHA
	1188 mg/m ³	TLV	ACGIH
	590 mg/m ³	REL	NIOSH
	2500 ppm	IDLH	OSHA
Petroleum Ether	300 ppm	PEL	OSHA
	1350 mg/m ³		
	400 ppm	STEL	OSHA
	1800 mg/m ³		
	350 mg/m ³	REL	NIOSH
	1800 mg/m ³	CEIL (15 minutes)	NIOSH

TWA: Time Weighted Average over 8 hours of work.
 TLV: Threshold Limit Value over 8 hours of work.
 REL: Recommended Exposure Limit
 PEL: Permissible Exposure Limit
 STEL: Short Term Exposure Limit during x minutes.
 IDLH: Immediately Dangerous to Life or Health
 WEEL: Workplace Environmental Exposure Levels
 CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles, and face shield.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, and complete body suit.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear, colorless liquid.
Odor	Not Available
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Flammable liquid.
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	Not Available
Vapor density	Not Available
Density	0.77 - 0.83 (water = 1)
Solubility (ies)	Not Available
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Keep away from heat, ignition sources, fire.
Incompatible Materials	Strong acids, extreme heat, strong alkalis, strong oxidizing agents and strong oxidizing conditions.
Hazardous Decomposition Products	Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	LD50 Dermal – rabbit – 3000 mg/kg (petroleum ether) LD50 Dermal – guinea pig – 7,426 mg/kg (acetone)
Eyes	Eyes – rabbit – Eye irritation – 24 hours (acetone)
Respiratory	LC50 Inhalation – rat – 4 hours 364,000 mg/m ³ (petroleum ether) LC50 Inhalation – rat – 8 hours – 50,100 mg/m ³ (acetone)
Ingestion	LD50 Oral – mouse – 5000 mg/kg (petroleum ether) LD50 Oral – rat – 5,800 mg/kg (acetone)

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Burning, itching, redness, may be harmful if absorbed through skin.
Eyes	Redness, excessive blinking and watering eyes.
Respiratory	Coughing, wheezing, headache, disorientation, blurred vision, dizziness, fatigue or nausea.
Ingestion	Nausea, vomiting, may cause blindness and central nervous system depression.

Chronic Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Not Available
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available
Aspiration Hazard	May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	LC50 – Oncorhynchus mykiss (Rainbow trout) – 5549 mg/l – 96 hours (acetone)
Aquatic Invertebrate	EC50 – Daphnia magna (water flea) – 9.74 mg/l – 48 hours (petroleum ether) EC50 – Daphnia magna (Water flea) – 13500.00 mg/l – 48 hours (acetone)
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste products or residues.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product containers.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1993, Flammable liquids, n.o.s. (Petroleum ether and acetone), 3, pg II
TDG	UN1993, FLAMMABLE LIQUIDS, N.O.S. (PETROLEUM ETHER AND ACETONE), 3, PG II
IMDG	UN1993, FLAMMABLE LIQUIDS, N.O.S. (PETROLEUM ETHER AND ACETONE), 3, PG II
Marine Pollutant	No
IATA/ICAO	UN1993, Flammable liquids, n.o.s. (Petroleum ether and acetone), 3, pg II

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Petroleum Ether, Acetone
SARA 312	Petroleum Ether, Acetone
SARA 313	Not Listed
WHMIS Canada	Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-2B: Material causing other toxic effects (VERY TOXIC).

16. OTHER INFORMATION

Revision	Date
Revision 1	01/07/2013

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