

MATERIAL SAFETY DATA SHEET

Acetone

SECTION 1 . Product and Company Identification

Product Name and Synonym: Acetone
Product Code: A1494
Material Uses:
Manufacturer: Science Stuff
1104 Newport Ave

Austin, TX 78753
(512) 837-6020
Entry Date : 5/23/2013
Print Date: 5/23/2013
24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	2
Flammability:	3
Reactivity:	0

Hazard Rating:
Least Slight Moderate High Extreme
0 1 2 3 4
NA=Not Applicable NE=Not Established

SECTION 2 HAZARD IDENTIFICATION

Keep away from heat and ignition sources. Harmful if swallowed. Avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Physical state: Liquid.

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:

DANGER!
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
HARMFUL IF INHALED OR SWALLOWED.
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS:
RESPIRATORY TRACT, SKIN, EYE,
CENTRAL NERVOUS SYSTEM
VAPOR MAY CAUSE FLASH FIRE.
EXTREMELY FLAMMABLE LIQUID AND VAPOR.

Keep away from heat, sparks and flame.
Do not breathe vapor or mist.
Do not ingest.
Avoid contact with eyes, skin or clothing.
Keep container tightly closed and sealed until ready for use. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry:
Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects:

Eyes: Irritating to eyes.
Skin: Irritating to skin.
Inhalation: Very toxic by inhalation. Irritating to the respiratory system.
Ingestion: Toxic if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity/ Reproductive toxicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

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Target organs: May cause damage to the following organs:
upper respiratory tract, skin, eyes, central nervous system (CNS).
Medical conditions aggravated by over-exposure:
Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk
may be aggravated by over-exposure to this product

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Acetone	CAS# 67-64-1	100%	V/V	OSHA TWA 1000 ppm (2400 mg/mf)

SECTION 4 FIRST AID MEASURES

Keep away from heat and ignition sources. Harmful if swallowed. Avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type:	Carbon Dioxide, dry chemical powder or appropriate foam
Fire / Explosion Hazards:	Vapors can form explosive mixtures at temperatures at or above the flashpoint. Vapor may travel to source of ignition and flash back.
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Eliminate Ignition Sources. Absorb with inert material. Place in container. Vent area and wash site.

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-Proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute

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with water and mop up if water- soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

SECTION 7 HANDLING AND STORAGE

Keep away from heat and flame. Do not get in eyes, on skin, on clothing. Use with adequate ventilation.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator

Ventilation

Local Exhaust

Mechanical

Protective Gloves: Wear appropriate gloves to prevent skin exposure

Eye Protection: Goggles and Face Shield

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

Product name - United States –

Acetone

ACGIH (United States, 1996).

STEL: 1782 mg/m³ 15 minute(s)

TWA: 1188 mg/m³ 8 hour(s)

OSHA (United States, 1989)

STEL: 2400 mg/m³ 15 minute(s)

TWA: 1800 mg/m³ 8 hour(s)

ACGIH TLV (United States, 1/2008)

TWA: 500ppm 8 hour(s)

TWA: 1188 mg/m³ 8 hour(s)

STEL: 750ppm 15 minute(s)

STEL: 1782 mg/m³ 15 minute(s)

OSHA PEL 1989 (United States, 3/1989)

TWA: 750ppm 8 hour(s)

TWA: 1800 mg/m³ 8 hour(s)

STEL: 1000ppm 15 minute(s)

STEL: 2400 mg/m³ 15 minute(s)

NIOSH REL (United States, 6/2008)

TWA: 250ppm 10 hour(s)

TWA: 590 mg/m³ 10 hour(s)

OSHA PEL (United States, 11/2006)

TWA: 1000ppm 8hour(s)

TWA: 2400 mg/m³ 8 hour(s)

Consult local authorities for acceptable exposure limits.

Engineering measures: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be

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used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Recommended: splash goggles, face shield

Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.

Body recommended: lab coat

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	-94°C	Percent Volatile by Volume:	>99
Boiling Point:	56°C	Evaporation Rate	>1
Vapor Pressure:	184 mm Hg @ 20°C	Evaporation Standard	
Vapor Density:	2.0 (air = 1)	Auto Ignition Temp	Information not available
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	2%
Appearance /Odors:	Clear liquid, mild odor	Upper Flamm. Limit in Air	13%
Flash Point:	-17°C		
Specific Gravity:	0.8		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability:	Stable
Conditions to Avoid:	Moisture, Avoid heat and ignition sources
Materials to Avoid:	Nitric Acid, Acetic Acid, Sulfuric Acid.
Hazardous Decomposition Products:	Toxic fumes of Carbon oxides
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

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SECTION 11 Toxicological Information

Toxicity data- United States- Product/ ingredient name:

Acetone			
LD50	250 mg/kg	Intravenous	Rat
LD50	195 mg/kg	Oral	Rabbit
LD50	400 mg/kg	Oral	Rat
LDLo	500 mg/kg	Oral	Human
LDLo	100 mg/kg	Dermal	Rabbit
LDLo	1540 mg/kg	Intraperitoneal	Rat
LDLo	500 mg/kg	Oral	Dog
LDLo	100 mg/kg	Oral	Rat
LD50	250 mg/kg	Inhalation Vapor	Rat

Carcinogenic effects: No known significant effects or critical hazards.

Mutagenic effects: No known significant effects or critical hazards.

Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

SECTION 12 Ecological Information

Aquatic toxicity

Product/ ingredient name

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Acute EC50	13500 mg/L	Daphnia	48 hours
Acute EC50	8990 mg/L	Fish	48 hours
Acute EC50	23.5 mg/L	Daphnia	48 hours
Acute LC50	5540 mg/L	Fish	96 hours
Acute LC50	>100 mg/L	Daphnia	96 hours
Acute LC50	>100 mg/L	Fish	96 hours
Acute LC50	6900 mg/L	Daphnia – Water flea	48 hours
Fresh water		Daphnia magna	
Acute LC50	5.54 to	Fish – Rainbow	96 hours
6.33 ml/L	Fresh water	trout,donaldson trout -	
		Oncorhynchus mykiss – 1g	
Acute LC50	8300000	Fish – Bluegill – Lepomis	96 hours
ug/L	Fresh water	macrochirus – 5.3 to 7.2 cm -	
		3.5 to 3.9 g	
Acute LC50	8120000 to	Fish – Fathead minnow -	96 hours
8760000 ug/L	Fresh water	Pimephales promelas – 33	
		days – 22.6mm – 0.159 g	
Acute LC50	8098000 to	Daphnia – Water flea -	48 hours
8640000 ug/L	Fresh water	Ceriodaphnia dubia –	
		Neonate - <12 hours	
Acute LC50	7810000 ug/L	Daphnia – Water flea -	48 hours
Fresh water		Daphnia cucullata – 11 days	
Acute LC50	7550000	Crustaceans – Aquatic	48 hours
Ug/L	Fresh water	sowbug – Asellus aquaticus	
Acute LC50	7460000 ug/L	Daphnia – Water flea -	48 hours
Fresh water		Daphnia cucullata – 11 days	
Acute LC50	7280000	Fish – Fathead minnow-	96 hours
to 7880000 ug/L	Fresh water	Pimephales promelas - 28	
		days – 19.2 mm – 0.076 g	
Acute LC50	7280000	Fish – Fathead minnow-	96 hours
to 7880000 ug/L	Fresh water	Pimephales promelas - 28	
		days – 19.2 mm – 0.076 g	
Acute LC50	>100000	Fish – Fathead minnow -	96 hours
ug/L	Fresh water	Pimephales promelas -	
		Juvenile (Fledgling,	
		Hatchling, Weanling) – 0.2 to 0.5g	
Acute LC50	13300000	Daphnia – Water flea -	48 hours
ug/L	Fresh water	Daphnia magna - <24 hours	
Acute LC50	13300000	Daphnia – Water flea -	48 hours
ug/L	Fresh water	Daphnia magna - <24 hours	
Acute LC50	13300000	Daphnia – Water flea -	48 hours
ug/L	Fresh water	Daphnia magna - <24 hours	
Acute LC50	11000000	Fish – Bleak – Alburnus	96 hours
to 11300000 ug/L	Marina water	alburnus – 8 cm	

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Acute LC50 7280000 ug/L Fresh water	Fish – Fathead minnow - Pimephales promelas - 25 mm	96 hours
Acute LC50 9218000 to 14400000 ug/L Fresh water	Daphnia – Water flea - Daphnia magna – Neonate - < 12 hours	48 hours
Acute LC50 9100000 To 9482000 ug/L Fresh water	Fish – Fathead minnow - Pimephales promelas – 2 to 3 months – 19 mm – 0.06 g	96 hours
Acute LC50 8800000 Ug/L Fresh water	Daphnia – Water flea - Daphnia pulex - <24 hours	48 hours

Environmental effects : No known significant effects or critical hazards.
Other adverse effects : No known significant effects or critical hazards.

SECTION 13 Disposal Considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14 Transport Information

DOT Classification: Acetone, 3, UN1090, PG II

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

United States

HCS Classification:
Target organ effects
Toxic material
Irritating material
Flammable liquid

U.S. Federal regulations:

United States inventory (TSCA 8b): listed
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notifications: No products were found.
SARA 302/304/311/312 hazardous chemicals: Acetone
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Acetone
Fire Hazard:
Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substance: No products were found.
Clean Air Act (CAA) 112 regulated toxic substance: No products were found.

DEA List I Chemicals : not listed
(Precursor Chemicals)
DEA List II Chemicals : listed
(essential Chemicals)

Massachusetts Substance : This material is listed.
New Jersey Hazardous Substances : This material is listed.
New York Acutely Hazardous Substances : This material is listed.
Pennsylvania RTK Hazardous Substances : This material is listed.

Canada

WHMIS (Canada) :

Class B-2 : Flammable liquid

Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists : CEPA Toxic Substance: This material is not listed.
Canadian ARET: This material is not listed.

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Canadian NPRI: This material is listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

CEPA DSL/ CEPA NDSL : CEPA DSL:
This material is listed or exempted.
This product has been classified in accordance with the hazard criteria of the CPR and the
MSDS contains all the information required by the CPR.

SECTION 16 Additional Information

Flammability

Health

Reactivity

Revisions

NFPA

0.2

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.