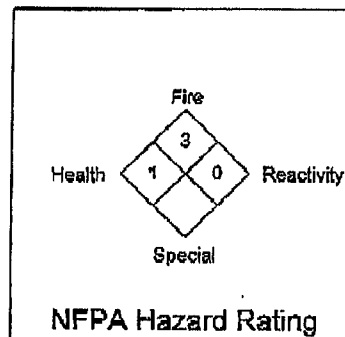


# THE PLAZA GROUP

## Material Safety Data Sheet: ACETONE

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	Acetone
<b>Effective date</b>	January 15, 2004
<b>Synonyms</b>	2-propanone, dimethyl ketone, dimethylformaldehyde, dimethylketal, beta-ketopropane
<b>Chemical formula</b>	$CH_3COCH_3$
<b>CAS name &amp; no.</b>	2-Propanone, 67-64-1
<b>Manufacturer's name and address</b>	Georgia Gulf Chemicals and Vinyls, LLC P.O. Box 629 Plaquemine, LA 70765
<b>Emergency telephone numbers</b>	For transportation emergencies: CHEMTREC (800) 424-9300 For all other emergencies: (225) 685-2500
<b>MSDS contact</b>	Corporate Health & Safety Department P.O. Box 629 Plaquemine, LA 70765-0629 Phone Number (225) 685-2500



## 2. COMPOSITION INFORMATION ON INGREDIENTS

Component	CAS No.	Wt. %
Acetone	67-64-1	>99.5

## 3. HAZARDS IDENTIFICATION

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### PRECAUTIONARY INFORMATION

**DANGER:** Highly flammable liquid. Eye injury. Skin irritant. Toxic by inhalation/toxic by ingestion. May cause nausea and dizziness. May cause central nervous system effect.

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#### Primary Routes of Exposure

Inhalation, ingestion, skin, and eye contact.

#### HAZARD CLASSIFICATION

##### Acute Effects

Central nervous system depression is the most common effect, resembling intoxication by ethyl alcohol. Excitation is followed by impaired motor coordination, slurred speech, sensory disturbances such as double vision and vertigo, flushing of the face, rapid pulse, and sweating. Nausea and vomiting are common. Other symptoms include dryness of the mouth and throat, headache, sleepiness, dizziness, light headedness, weakness, and loss of energy. Very high exposures may cause unconsciousness, coma, or death. Kidney toxicity may occur but is rare following acute exposure. Post-alcoholic headache and gastritis are common in recovery. Inhalation exposure may cause lung irritation and cough. Skin contact may result in redness, irritation, and dermatitis since acetone has a drying effect on the skin. Contact with eyes can result in irritation and eye injury.

##### Chronic Effects

Irritation of the eyes, nose, and throat are the most common problems associated with chronic exposure to acetone. Central nervous system effects such as dizziness and sleepiness can occur, as can dryness, irritation, and inflammation of the skin.

##### Carcinogenic

Acetone is not considered carcinogenic by OSHA, NIOSH, NTP, IARC or EPA.

##### Potential Adverse Chemical Interactions

Acetone may increase the toxicity to the liver and kidney of chemicals such as ethanol, 1, 2-dichloroethylene, and chloroform. Humans with liver or kidney disease may be at increased risk due to this potentiation effect.

## 4. FIRST AID MEASURES

### Inhalation

If victim is overcome, remove to fresh air and call a physician. If breathing is irregular or has stopped, administer artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible.

### Skin Contact

Wash thoroughly with water. If clothing is contaminated, promptly remove clothing and wash the skin with soap and water for at least 15 minutes. Get medical attention promptly. If systemic effects are observed, first aid procedures are the same as above for inhalation.

### Eye Contact

Immediately flush eyes with room temperature water for at least 15 minutes, occasionally lifting the lower and upper lids. Consult an ophthalmologist without delay. Contact lenses should not be worn when working with this chemical.

### Ingestion

If victim has swallowed large amounts and is conscious and not convulsing, induce vomiting (30 ml syrup of Ipecac for adults, one or two doses) and call a physician promptly. Never give fluids to an unconscious person.

## 5. FIRE FIGHTING MEASURES

**Flash Point** -17° C (closed cup)

### Flammable Limits (% By Vol.)

Lower Explosive Limit (LEL)	2.6
Upper Explosive Limit (UEL)	12.8

**Autoignition Temperature** 465° C

### Fire Fighting Procedures/Fire Extinguishing Media

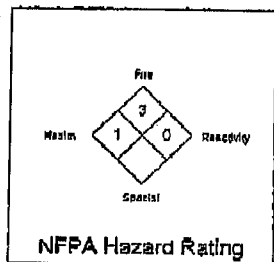
Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind. Do not enter fire area without structural firefighter's protective equipment including NIOSH approved self-contained breathing apparatus in positive pressure mode. Use water spray to knock down vapors. Use carbon dioxide extinguishers or dry powder for small fires. Large fires are best controlled by alcohol foam, fog, and water spray. Use water spray to cool containers exposed to acetone fires. Stay away from ends of tanks. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Isolate for 2 mile in all directions if tank, rail car, or tank truck is involved in fire. Acetone - water solutions containing more than 2.0 wt.% acetone will flash at less than 38°C, and should be considered flammable.

## 5. FIRE FIGHTING MEASURES (continued)

### Unusual Fire and Explosion Hazards

Dangerous fire hazard when exposed to heat, sparks, flame, or oxidants. Acetone is extremely flammable and its vapors form explosive mixtures with air. Acetone containers may explode in heat of fire. Vapors of acetone are heavier than air, and may travel considerable distance to a source of ignition and flash back. Do not use a direct stream of water on acetone fires, as direct water streams have a tendency to spread acetone fires. Water solutions of acetone may still be flammable because of released vapors.

### National Fire Protection Association Hazard Rating



- 4 = Extreme
- 3 = High
- 2 = Moderate
- 1 = Slight
- 0 = Insignificant

## 6. ACCIDENTAL RELEASE MEASURES

Shut off all ignition sources. No smoking or flares allowed in the spill area. Restrict access to the spill area, and move unprotected personnel upwind of the area. Allow only trained personnel wearing appropriate protective clothing and self-contained breathing apparatus in the vicinity of the spill. Prevent acetone from entering water bodies, drains or any sewage collection systems. For small spills, take up with sand or other absorbent material and place into containers for later disposal. Control large spills by diking. Dispose spill material in accordance with federal, state, and local regulations. Acetone spills over the reportable quantity (5,000 lbs.) must be reported to the National Response Center (800-424-8802).

## 7. HANDLING AND STORAGE

### Storage

Store in a well ventilated place, away from sources of ignition and direct sunlight and in accordance with 29 CFR 1910.106. Acetone should be stored in drums or storage containers made from non-flammable materials. Store away from plastics, oxidizing materials, mineral acids, and chloroform. Store acetone in an area equipped with automatic sprinklers or fire extinguishing system. All acetone storage and transfer equipment should be electrically grounded and bonded to prevent possible ignition from static sparks. Use spark resistant equipment to store acetone. Do not use air pressure to unload acetone from containers. Containers of this material may be hazardous when empty. Since emptied containers retain product residues, assume emptied containers to have the same hazards as full containers. Wear appropriate protective equipment when handling acetone. Follow all federal, state, and local regulations as well as all insurance codes when storing and handling acetone.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Respiratory Protection

Use appropriate NIOSH approved respirators in accordance with 29 CFR 1910.132 and 1910.134, to prevent overexposure. Respirators must be selected based on the airborne levels found in the workplace and must not exceed the working limits of the respirator.

### Ventilation

Provide local ventilation to maintain exposure levels below recommended exposure limits. Use explosion proof ventilation equipment. Local exhaust ventilation should comply with OSHA regulations and the American Conference of Governmental Industrial Hygienists, Industrial Ventilation - A Manual of Recommended Practice.

### Eye Protection

Use splash proof chemical safety goggles. Follow the eye and face protection guidelines of 29 CFR 1910.132 and 1910.133. Where there is any possibility that individual's eyes may be exposed to acetone, an eye wash fountain (in accordance with 29 CFR 1910.151) should be within the immediate work area for emergency use. Contact lenses should not be worn when working with this chemical.

### Protective Gloves

Use butyl, viton or neoprene gloves.

### Occupational Exposure Guidelines for Acetone

OSHA	PEL (Ceiling)	1000 ppm
ACGIH	TLV-TWA	500 ppm
	TLV-STEL	750 ppm
NIOSH	REL (10hr TWA)	250 ppm
	IDLH	2500 ppm

**Other** Where there is a possibility of exposure of an individual's body to acetone, facilities for quick drenching of the body should be provided (in accordance with 29 CFR 1910.151) within the immediate work area for emergency use. Such individuals should be provided with and required to use impervious clothing in accordance with 29 CFR 1910.132.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Colorless liquid
<b>Odor</b>	Pungent, sweetish odor
<b>Molecular Weight</b>	58.09
<b>Boiling Point</b>	56.1° C
<b>Melting Point</b>	-95.35° C
<b>Solubility</b>	Completely miscible in water; miscible in alcohol, chloroform, dimethylformamide, ethers, and most oils
<b>Specific Gravity (Water = 1.0)</b>	0.7910 - 0.7930 at 20°/20° C
<b>Vapor Density (Air = 1.0)</b>	2.00
<b>Vapor Pressure</b>	185 mm Hg at 20° C
<b>pH</b>	Approximately 7 in 1/1 volume with water

## 10. STABILITY AND REACTIVITY

### Stability

Stable under normal conditions

### Polymerization

Hazardous polymerization does not occur

### Hazardous Decomposition Products

Combustion yields carbon dioxide and carbon monoxide

### Incompatible Materials

Acids and strong oxidizing materials

## 11. TOXICOLOGICAL INFORMATION

The following information on acetone is extracted from both the TOXNET and RTECS databases.

### Animal Toxicity

<b>Oral:</b>	Dog LD <sub>50</sub>	8g/kg
	Rat LD <sub>50</sub>	5.8 g/kg
	Human TD <sub>LO</sub>	2.9 g/kg (coma)
<b>Dermal:</b>	Rabbit LD <sub>50</sub>	20 g/kg
<b>Inhalation:</b>	Mouse LC <sub>50</sub>	46,420 ppm (62 min)
	Rat LC <sub>50</sub>	21,142 ppm (8 hr)
	Human TC <sub>LO</sub>	500 ppm for eye and throat irritation

TC<sub>LO</sub> = Lowest air concentration that is toxic to a given species.

LC<sub>50</sub> = Air concentration that is lethal to 50% of a given species in a given period of time.

LD<sub>50</sub> = Dose that is lethal to 50% of a given species by a given route of exposure.

TD<sub>LO</sub> = Lowest dose that is toxic to a given species.

## 12. ECOLOGICAL INFORMATION

**Environmental Fate:** The following information on acetone is extracted from the TOXNET database maintained by the National Library of Medicine.

**Atmosphere:** Based on an experimental vapor pressure of 231 mm Hg at 25 deg C, acetone is expected to exist solely as a vapor in the ambient atmosphere. Vapor-phase acetone is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals with an estimated atmospheric half-life of 71 days. Acetone also undergoes photodecomposition by sunlight with an estimated half-life of about 80 days.

**Terrestrial:** Acetone is expected to have very high mobility in soils based upon an estimated Koc value of 1. Volatilization from dry soil surfaces is expected based upon the vapor pressure of this compound. Volatilization from moist soil surfaces is also expected based upon the measured Henry's Law constant of  $1.87 \times 10^{-5}$  atm-cu m/mol.

**Aquatic:** In water, acetone is not expected to adsorb to suspended solids or sediment based upon its estimated Koc value. Volatilization from water surfaces is expected to be an important environmental fate process given its estimated Henry's Law constant. Estimated half-lives for a model river and model lake are 38 and 333 hours, respectively. Experimentally determined volatilization half-lives in a shallow stream were measured in the range of 8-18 hours.

**Biodegradation:** This compound is expected to biodegrade under aerobic and anaerobic conditions.

## 12. ECOLOGICAL INFORMATION (continued)

**Ecotoxicity:**

LC50 Daphnia magna 10 mg/L 24 to 48-Hr

LC50 Lepomis macrochirus (bluegill sunfish) 8,500 mg/L 96 hr

LC50 Salmo Gairdneri (Rainbow Trout) 5,540 mg/L/96 hr @ 12 deg C (95% Confidence Limit 4,740-6,330 mg/L), wt. 1.0 g

## 13. DISPOSAL CONSIDERATIONS

**Waste Management Information:** Do not dump into any sewers, on the ground, or into any body of water. Any disposal practice must be in compliance with local, state and federal laws and regulations (contact local or state environmental agency for specific rules). Waste characterization and compliance with applicable laws are the responsibility of the waste generator.

## 14. TRANSPORTATION INFORMATION

Proper Shipping Name	Acetone
DOT Hazard Class	3, (Flammable liquid)
DOT Shipping ID No.	UN 1090
DOT Labeling	Flammable liquid
PG	II
Placard	Flammable



# 15. REGULATORY INFORMATION

Regulatory information is not meant to be all-inclusive. It is the user's responsibility to ensure compliance with federal, state or provincial and local laws.

## SARA Title III

Title III Section 302 and 304 of the Act; Extremely Hazardous Substances (40 CFR 355)

COMPONENT	CAS No.	TPQ (lbs.)	RQ (lbs.)
None	Not Applicable	Not Applicable	Not Applicable

Note: TPQ - Threshold Planning Quantity      RQ - Reportable Quantity

Section 311 Hazard Categorization (40 CFR 370)

ACUTE	CHRONIC	FIRE	PRESSURE	REACTIVE
X	X	X		

Section 313 Toxic Chemicals (40 CFR 372.65)

COMPONENT	CAS No.	WT. %
None	Not Applicable	Not Applicable

## CERCLA

CERCLA Section 102(a) Hazardous Substances (40 CFR 302.4)

COMPONENT	CAS No.	WT. %	RQ (lbs)
Acetone	67-64-1	>99.5	5,000

## RCRA

40 CFR 261.33 Hazardous waste number: Acetone waste and material contaminated with acetone would be regulated as a hazardous waste material with hazardous waste number U002.

## TSCA

Acetone is listed on the TSCA Inventory.

## Proposition 65

Acetone is not listed on the California Proposition 65 list.

## Canadian Regulations

This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33 and the MSDS contains all information required by this regulation.

WHMIS Classification- Class B, Division 2

### WHMIS Ingredient Disclosure List

Acetone	CAS 67-64-1	Cutoff- 1%
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## 15. REGULATORY INFORMATION (continued)

### Canadian Environmental Protection Act (CEPA)

All substances in this product are listed on the Canadian Domestic Substances (DSL) list or are not required to be listed.

## 16. OTHER INFORMATION

**IMPORTANT:** The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. **GEORGIA GULF CHEMICALS AND VINYL, LLC MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, CONCERNING THE ACCURACY OR COMPLETENESS OF THE INFORMATION AND DATA HEREIN.** Georgia Gulf will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading. This information relates to the material designated and may not be valid for such material used in combination with any other materials nor in any process.

MSDS Status: Revision Date 01/15/04

Supersedes: 02/01/00