



Material Safety Data Sheet

1. Product and Company Identification

Product name : **Acetone**

Chemical formula : C-H₃-C-O-C-H₃

Synonyms : Dimethylformaldehyde, Dimethylketal, Dimethyl Ketone, Beta-Ketopropene, Propanone, 2-Propanone, Pyroacetic Ether, B-Ketopropane; UN 1090

Company : Specialty Gases of America, Inc
6055 Brent Dr.
Toledo, OH 43611

Telephone : 419-729-7732

Emergency : 800-424-9300

2. Composition/Information on Ingredients

Components	CAS Number	% Volume
Acetone	67-64-1	100%

3. Hazards Identification

Emergency Overview

Flammable liquid and vapor. Vapor may cause flash fire.
May cause respiratory tract irritation, skin irritation, eye irritation, central nervous system depression.

Potential Health Effects

Inhalation : Irritation, low body temperature, nausea, stomach pain, difficulty breathing, headache, drowsiness, symptoms of drunkenness, kidney damage, liver damage, coma.

Eye contact : Irritation.

Skin contact : Irritation. May cause tingling sensation in long term exposure.

Ingestion : Nausea, diarrhea, symptoms of drunkenness, kidney damage, liver damage, coma.

Chronic Health Hazard : Not applicable.

4. First Aid Measures

General advice : None.

Eye contact : Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Skin contact : Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing before reuse.

Ingestion : Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to

side. Get medical attention immediately.
Inhalation : It is unlikely that emergency treatment will be required.
Note to physicians : For ingestion, consider gastric lavage and activated charcoal slurry.

5. Fire-Fighting Measures

Suitable extinguishing media : Alcohol resistant foam, carbon dioxide, regular dry chemical, water.
Specific hazards : Large fires: Use alcohol-resistant foam or flood with fine water spray.
Fire fighting : Severe fire hazards. The gas is heavier than air. Vapor or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive.
Fire fighting : Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Evacuation radius: 800 meters (1/2 mile). Water may be ineffective.

6. Accidental Release Measures

Occupational spill/release : Avoid heat, flames, sparks and other sources of ignition. Remove sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Absorb with sand or other non-combustible materials. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Remove sources of ignition. Keep unnecessary people away. Isolate hazard area and deny entry. Stay upwind and keep out of low areas. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800) 424-8802 (USA) or (202) 426-2675 (USA).
Additional advice : None.

7. Handling and Storage

Handling

Secure cylinder when using to protect from falling. Use suitable hand truck to move cylinders.

Storage

Store in accordance with all current regulations and standards. Subject to storage regulation: U.S. OSHA 29 CFR 1910.106. Grounding and bonding required. Keep separated from incompatible substances.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH : 500 ppm TWA
750 ppm STEL
OSHA (final) : 1000 ppm TWA; 2400 mg/m³ TWA
OSHA (vacated) : 2400 mg/m³ STEL The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors; 1000 ppm STEL
750 ppm TWA; 1800 mg/m³ TWA
NIOSH : 250 ppm TWA; 590 mg/m³ TWA

IDLH
2500 ppm

Engineering measures/Ventilation

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present.
Ensure compliance with applicable exposure limits.

Personal protective equipment

- Respiratory protection : The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.
2500 ppm – Any air-purifying half-mask respirator equipped with organic vapor cartridge(s).
Any powered, air-purifying respirator with organic vapor cartridge(s).
Any air-purifying full-facepiece respirator (gas mask) with a chin-style, front-mounted or back-mounted organic vapor canister.
Any supplied-air respirator.
Any self-contained breathing apparatus with a full facepiece.
Emergency or planned entry into unknown concentrations or IDLH conditions –
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.
Escape –
Any air-purifying full-facepiece respirator (gas mask) with a chin-style, front-mounted or back-mounted canister providing protection against this substance.
Any appropriate escape-type, self-contained breathing apparatus.
For unknown concentrations or immediately dangerous to life or health – Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.
- Hand protection : Wear appropriate chemical resistant gloves.
- Eye protection : Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
- Skin and body protection : Wear appropriate chemical resistant clothing.

9. Physical and Chemical Properties

- Form : Liquid.
Color : Colorless.
Odor : Sweet odor, minty odor, pungent odor, pleasant odor.
Taste : Sweet taste.
Molecular weight : 58.08
Vapor pressure : 180 mmHg @ 20°C
Vapor density : 2.0 (air = 1)
Specific gravity : 0.7899 (water = 1)
Boiling point : 133°F (56°C)
Melting point : -139°F (-95°C)
Water solubility : Soluble.
Solvent solubility : Soluble: ethanol, ether, chloroform, benzene, oils, dimethylformamide.

Evaporation rate : 14.4 (butyl acetate = 1)

10. Stability and Reactivity

Stability : Stable under normal conditions.
Conditions to avoid : Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.
Materials to avoid : Acids, amines, halogens, halo carbons, oxidizing materials, metal salts, peroxides, combustible materials, bases
Hazardous decomposition products : Thermal decomposition products: oxides of carbon.

11. Toxicological Information

The components of this material have been reviewed in various sources and the following selected endpoints are published:

ACETONE (67-64-1) : Oral LD50 Rat: 5800 mg/kg

Acute Toxicity Level

ACETONE (67-64-1) : Moderately toxic: inhalation
Slightly toxic: ingestion

Component Carcinogenicity

ACGIH : A4 – Not classifiable as a Human Carcinogen

Local Effects

ACETONE (67-64-1) : Irritant: inhalation, skin, eye

Target Organs

ACETONE (67-64-1) : Central nervous system

Medical Conditions Aggravated by Exposure

Respiratory disorders, skin disorders and allergies

Additional Data

Alcohol may enhance the toxic effects.

12. Ecological Information

Aquatic Toxicity

ACETONE (67-64-1) : Fish: 96 Hr LC50 Oncorhynchus mykiss: 4.74-6.33 ml/L; 96 Hr LC50 Pimephales promelas: 6210-8120 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 8300 mg/L
Invertebrate: 48 Hr EC50 Daphnia magna: 10294-17704 mg/L [static]; 48 Hr EC50 Daphnia magna: 12600-12700 mg/L

13. Disposal Considerations

Waste from residues / unused products : Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U002. Dispose in accordance with all applicable regulations.
Contaminated packaging : Return cylinder to supplier.

14. Transport Information

DOT (US only)

Proper shipping name : Acetone
Class : 3, Packing Group II
UN/ID No. : UN1090
Labeling : Flammable Liquid

Further information

Cylinders should be transported in a secure upright position in a well ventilated truck.

15. Regulatory Information

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

ACETONE (67-64-1)
CERCLA : 5000 lb final RQ; 2270 kg final RQ

SARA 311/312

Acute: Yes
Chronic: No
Fire: Yes
Reactive: No
Pressure: No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
ACETONE	67-64-1	Yes	Yes	Yes	Yes	Yes	Yes

Not regulated under California Proposition 65

16. Other Information

Prepared by : Specialty Gases of America, Inc.
For additional information, please visit our website at www.americangasgroup.com.