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

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.

5. Fire-Fighting Measures

Suitable extinguishing media	:	Alcohol resistant foam, carbon dioxide, regular dry chemical, water.
Specific hazards	:	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

Personal precautions	:	None.
Environmental precautions	:	None.
Methods for cleaning up	:	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 1910.101. Grounding and bonding required. Keep separated from incompatible substances.

8. Exposure Controls / Personal Protection

Exposure limits

1000 ppm (2400 mg/m3) OSHA TWA
750 ppm (1780 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)
1000 ppm (2375 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993)
500 ppm ACGIH TWA
750 ppm ACGIH STEL
250 ppm (590 mg/m3) NIOSH recommended TWA 10 hour(s)

Engineering measures

Not available.

Personal protective equipment

Respiratory protection	:	The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA. 2500 ppm – Any chemical cartridge respirator with organic vapor cartridge(s). Any powered, air-purifying respirator with organic vapor cartridge(s). Any air-purifying respirator with a full facepiece and an organic vapor canister. Any supplied-air respirator. Any self-contained breathing apparatus with a full facepiece. Escape – Any air-purifying respirator with a full facepiece and an organic vapor canister. Any appropriate escape-type, self-contained breathing apparatus. For unknown concentrations or immediately dangerous to life or health – Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.
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.
Ventilation	:	Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

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)
Freezing 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

Irritation data	:	500 ppm eyes-human; 395 mg open skin-rabbit mild; 500 mg/24 hour(s) skin-rabbit mild; 20 mg eyes-rabbit severe; 20 mg/24 hour(s) eyes-rabbit moderate; 10 ul eyes-rabbit mild; 186300 ppm eyes-human mild.

Toxicity data	:	50100 mg/m3/8 hour(s) inhalation-rat LC50; > 9400 ul/kg skin-guinea pig LD50; 5800 mg/kg oral-rat LD50.
Carcinogen status	:	ACGIH: A4 – Not classifiable as Human Carcinogen.

Acute Health Hazard

Ingestion	:	Slightly toxic.
Inhalation	:	Slightly toxic.
Skin	:	Not available.

12. Ecological Information

Ecotoxicity Data

Fish Toxicity	:	4 ug/L 96 hour(s) LC50 (Mortality) Harlequinfish, red rasbora (Rasbora heteromorpha).
Invertebrate Toxicity	:	35 ug/L 48 hour(s) EC50 (Immobilization) Water flea (Daphnia pulex).
Algal Toxicity	:	< 14 ug/L 11-14 hour(s) MATC (Growth) Red algae (Champia parvula).
Other Toxicity	:	0.21 ug/L 96 week(s) LC50 (Mortality) Frog (Rana hexadactyla).

Fate and Transport

Bioconcentration	:	100000 ug/L 32 hour(s) BCF (Residue) Fathead minnow (Pimephales promelas) 4.3 ug/L.

Environmental Summary

Highly toxic to aquatic life.

13. Disposal Considerations

Waste from residues / unused products	:	Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001. 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

OSHA Process Safety (29 CFR 1910.119) Hazard Class(es)

Not regulated.

TSCA

Material is listed in TSCA inventory.

SARA Title III Section 302 Extremely Hazardous Substances (40 CFR 355.30)

Not regulated.

SARA Title III Section 304 Extremely Hazardous Substances (40 CFR 355.40)
Not regulated.

SARA Title III SARA Sections 311/312 Hazardous Categories (40 CFR 370.21)
Acute: Yes
Chronic: No
Fire: Yes
Reactive: No
Sudden Release: No

SARA Title III Section 313 (40 CFR 372.65)
Not regulated.

16. Other Information

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