

SAFETY DATA SHEET

1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Acetone

Product No.: 9006-R, 9006-ZX, 9006-03, 9006-06, 9006-11, 9006-22, 9006-33, 9006-8P, 9006-96, 9006-99, 9006-98, 9006-9Q, 9006-8H, 9006-3C, 9006-13, 9006-07, 9006-05, 9006-01, 9006-ZT

Synonyms, Trade Names:
2-Propanone, Dimethyl ketone

Manufacturer:
Avantor Performance Materials, Inc.
3477 Corporate Parkway, Suite 200
Center Valley, PA 18034
U.S.A.

Telephone:
Customer Service: 855-282-6867

Contact Person: Environmental Health & Safety
e-mail: info@avantormaterials.com

Emergency telephone:
24 Hour Emergency: 908-859-2151
Chemtrec: 800-424-9300

2 HAZARDS IDENTIFICATION

GHS classification:

Physical hazards	Flammable liquids	Category 2
Health hazards	Skin corrosion/irritation	Category 3
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity - single exposure	Category 3 ¹
	Aspiration hazard	Category 2

1. Narcotic effect., Respiratory tract irritation.

GHS label elements

Symbol(s):



Signal words:

Danger

Hazard Statement(s):

H225: Highly flammable liquid and vapor. H305: May be harmful if swallowed and enters airways. H316: Causes mild skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H336: May cause drowsiness or dizziness.

Precautionary statement

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/mist/vapors. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.

- Response:** In case of fire: Use water spray, foam, dry powder or carbon dioxide for extinction. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
- Storage:** Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
- Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Substance or Preparation:

Chemical name	CAS-No.	Concentration
ACETONE	67-64-1	99 - 100%

4 FIRST AID MEASURES

- General:** Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
- Inhalation:** Move to fresh air. Get medical attention if symptoms persist.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.
- Skin contact:** Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
- Ingestion** Call a physician or poison control center immediately. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Likely Acute or Delayed Symptoms/Effects** No data available.
- Notes to the physician:** Symptoms may be delayed.

5 FIRE-FIGHTING MEASURES

- Extinguishing media:** Water spray, foam, dry powder or carbon dioxide.
- Unsuitable extinguishing media:** Avoid water in straight hose stream; will scatter and spread fire.
- Unusual Fire & Explosion Hazards:** Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Heat may cause the containers to explode.

Special Fire Fighting Procedures: Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Protective Measures: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions: See Section 8 of the MSDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind.

Environmental precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

Spill Cleanup Methods: Eliminate all ignition sources if safe to do so. Stop leak if possible without any risk. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures: Inform authorities if large amounts are involved.

7 HANDLING AND STORAGE

Handling: DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Use personal protective equipment as required. Do not get in eyes, on skin, on clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Ground/bond container and receiving equipment. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

Storage: Keep away from food, drink and animal feedingstuffs. Keep container tightly closed in a cool, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Exposure limits:

Chemical name	Type	Exposure Limit values	Source
ACETONE	STEL	450 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1) (03 2008)
	TWA	300 mg/m3	China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1) (03 2008)
	TWA	750 ppm 1,780 mg/m3	Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials) (12 2003)

Personal protective equipment (ppe):

- Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapor cartridge.
- Eye protection:** Wear safety glasses with side shields (or goggles) and a face shield.
- Hand protection:** Chemical resistant gloves
- Skin protection:** Wear suitable protective clothing and gloves.
- Hygiene measures:** Provide eyewash station and safety shower. Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Avoid contact with eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Physical State:** Liquid
- Form:** Liquid
- Color:** Colorless
- Odor:** Sweet, mint-like
- Odor Threshold:** No data available.
- pH:** No data available.
- Freezing point:** -94.7 °C
- Boiling Point:** 56.05 °C (101.325 kPa)
- Flash Point:** -20 °C (Closed Cup)
- Evaporation Rate:** No data available.
- Flammability (solid, gas):** Class IB Flammable Liquid
- Flammability Limit - Upper (%)-:** 12.8 %(V)
- Flammability Limit - Lower (%)-:** 2.6 %(V)
- Vapor pressure:** 30.93 kPa (25 °C)
- Vapor density (air=1):** No data available.
- Relative density:** 0.7899
- Solubility(ies)**
- Solubility in Water:** No data available.
- Solubility (other):** No data available.
- Partition coefficient (n-octanol/water):** -0.24

Autoignition Temperature:	869 °F
Decomposition Temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

10 STABILITY AND REACTIVITY

Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Hazardous polymerization does not occur.
Conditions to avoid:	Heat, sparks, flames.
Incompatible materials:	Oxidizers, acids
Hazardous decomposition products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11 TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation:	May cause irritation to the respiratory system.
Ingestion:	Harmful if swallowed.
Skin contact:	Causes mild skin irritation. Prolonged or repeated skin contact may cause drying, cracking, or irritation.
Eye contact:	Causes eye irritation.

Information on toxicological effects

Acute Toxicity

Oral

Product: LD 50 (Rat): 5,800 mg/kg

Dermal

Product: LD 50 (Rabbit): 20,000 mg/kg

Inhalation

Product: LC 50 (Rat, 4 h): 76 mg/l

Repeated dose toxicity

Product: No data available.

Skin corrosion/irritation:

Product: Prolonged or repeated contact may cause irritation.

Serious eye damage/eye irritation:

Product: Irritating to eyes.

Respiratory or skin sensitization:

Product: Not a skin sensitizer.

Germ cell mutagenicity

In vitro

Product: No mutagenic components identified

In vivo

Product: No mutagenic components identified

Carcinogenicity

Product: This substance has no evidence of carcinogenic properties.

Reproductive toxicity

Product: Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure

Product: Respiratory tract irritation. Narcotic effect.

Specific target organ toxicity - repeated exposure

Product: None known.

Aspiration hazard

Product: Not classified

Other adverse effects:

None known.

12 ECOLOGICAL INFORMATION

Ecotoxicity

Acute toxicity

Fish

Product: LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 5,490 - 7,030 mg/l Mortality
LC 50 (Bluegill (*Lepomis macrochirus*), 96 h): 8,300 mg/l Mortality

Aquatic invertebrates

Product: LC 50 (Brine shrimp (*Artemia salina*), 24 h): 2,100 mg/l Mortality
LC 50 (Water flea (*Daphnia magna*), 48 h): 12,100 mg/l Mortality

Chronic Toxicity

Fish

Product: No data available.

Aquatic invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and degradability

Biodegradation

Product: Expected to be readily biodegradable.

BOD/COD ratio

Product: No data available.

Bioaccumulative potential

Product: No data available on bioaccumulation.

Mobility in soil:

No data available.

Results of PBT and vPvB assessment: Not available.

Other adverse effects: The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13 DISPOSAL CONSIDERATIONS

Disposal Methods: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Since emptied containers retain product residue, follow label warnings even after container is emptied.

14 TRANSPORT INFORMATION

IMDG - International Maritime Dangerous Goods Code

UN number:	UN 1090
UN proper shipping name:	ACETONE
Transport hazard class(es):	3
Subsidiary risk label:	—
Packing group:	II
Label(s):	3
Marine Pollutant:	
EmS No.:	F-E; S-D

IATA

UN number:	UN 1090
Proper Shipping Name:	Acetone
Transport hazard class(es):	3
Subsidiary risk label:	—
Packing group:	II
Label(s):	3

15 REGULATORY INFORMATION

Provisions of the Regulations for the Safe Handling of Chemicals in the Workplace, particularly those relating to the safe use, production, storage and transportation of dangerous chemicals.

Regulations on the Control over the Safety of Dangerous Chemicals

Code of Practice for Safe Management of Dangerous Chemicals (Ministry of Labor, No.677-1992).

16 OTHER INFORMATION

Inventory Status

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EU EINECS List:	On or in compliance with the inventory
EU ELINCS List:	Not in compliance with the inventory.
Japan (ENCS) List:	On or in compliance with the inventory
EU No Longer Polymers List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Switzerland Consolidated Inventory:	Not in compliance with the inventory.

Japan ISHL Listing:
Japan Pharmacopoeia Listing:

On or in compliance with the inventory
Not in compliance with the inventory.

Revision Information:

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Disclaimer:

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