SAFETY DATA SHEET

1 PRODUCT AND COMPANY IDENTIFICATION

GHS Product identifier: Acetone

Other means of identification

Synonyms: 2-Propanone
Product No.: 2432, 2435, 2437, 2440, 2443, 2462, 2570, 2572, 5008, 5018, 5276, 5356, 5580, 5965, 5975, 9002, 9003, 9005, 9006, 9008, 9009, 9010, 9015, 9036, 9254, 9271, 9422, 9910, A134, H451, H580
Intended Use: For Laboratory, Research or Manufacturing Use.

Details of the supplier of the safety data sheet:
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200
Radnor, PA 19087

Telephone:
Customer Service: 855-282-6867

Contact Person: Product Information Compliance
E-mail: info@avantormaterials.com

Emergency telephone: CHEMTREC: 00801-14-8954 (24/7)

2 HAZARDS IDENTIFICATION

GHS classification:

Physical Hazards	Flammable liquids	Category 2
Health Hazards	Serious Eye Damage/Eye Irritation	Category 2A
	Specific Target Organ Toxicity - Single Exposure	Category 3[1.]
	Aspiration Hazard	Category 2

1. Narcotic effect.

GHS label elements

Symbol(s):

Signal Words: Danger

Hazard Statement(s):
Highly flammable liquid and vapor.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May be harmful if swallowed and enters airways.

Precautionary Statements
Prevention:
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Use explosion-proof [electrical/ventilating/lighting] equipment. Ground and bond container and receiving equipment. Use non-sparking tools. Take action to prevent static discharges. Wash thoroughly after handling. Avoid breathing dust/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

Response: In case of fire: Use water spray, foam, dry powder or carbon dioxide for extinction. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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 INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.

Storage: Store in a well-ventilated place. Keep cool. 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	99.00 - 100.00%

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. Get medical attention if irritation persists after washing.

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 Narcotic effect.

Notes to the physician: Symptoms may be delayed. Treat symptomatically.

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 SDS 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:	In case of leakage, eliminate all ignition sources. Take precautionary measures against static discharges. Stop leak if possible without any risk. Use non-sparking tools. 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. Ground and bond container and receiving equipment. 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. 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 feeding stuffs. 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	TWA	200 ppm	475 mg/m3	Taiwan. OELs (Standards of Permissible Exposure Limits at Workplace, Notice No. 58463) (03 2018)
	STEL	250 ppm	593.75 mg/m3	Taiwan. OELs (Standards of Permissible Exposure Limits at Workplace, Notice No. 58463) (03 2018)

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:	5 - 6 (20 °C)
Freezing point:	-94.8 - 94.6 °C
Boiling Point:	56 °C (101.3 kPa)
Flash Point:	-20 - -17 °C (Closed Cup)
Evaporation Rate:	No data available.
Flammability (solid, gas):	Class IB Flammable Liquid
Flammability Limit - Upper (%)–:	12.8 %(V)
Flammability Limit - Lower (%)–:	2.13 - 2.6 %(V)
Vapor pressure:	233 - 240 hPa (20 °C) 309 hPa (25 °C) 530 - 560 hPa (40 °C)
Vapor density (air=1):	2
Relative density:	0.80 (20 °C)
Solubility(ies)	
Solubility in Water:	Miscible
Solubility (other):	Alcohol: Miscible benzene: Soluble chloroform: Miscible dimethylformamide: Miscible ether: Miscible
Partition coefficient (n-octanol/water):	-0.24

Autoignition Temperature:	465 °C
Decomposition Temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

Other information

Molecular weight:	58.08 g/mol ($(CH_3)_2CO$)
Minimum ignition energy:	1.15 mJ

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. Contact with incompatible materials.
Incompatible Materials:	Strong acids. Strong oxidizing agents.
Hazardous Decomposition Products:	Thermal decomposition may release oxides of carbon.

11 TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation:	May cause irritation to the respiratory system.
Ingestion:	May cause irritation of the gastrointestinal tract.
Skin Contact:	Prolonged skin contact may cause temporary irritation.
Eye contact:	Causes serious 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): 50.1 - 76 mg/l

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation:
Product: Prolonged skin contact may cause temporary irritation.

Serious Eye Damage/Eye Irritation:
Product: Causes serious eye irritation.

Respiratory or Skin Sensitization:
Product: Not a skin nor a respiratory 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: No components toxic to reproduction

Specific Target Organ Toxicity - Single Exposure
Product: Narcotic effect.

Specific Target Organ Toxicity - Repeated Exposure
Product: None known.

Aspiration Hazard
Product: May be harmful if swallowed and enters airways.

Other adverse effects: None known.

12 ECOLOGICAL INFORMATION

General information: Not applicable

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.

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(s):	–
Packing Group:	II
Label(s):	3
Marine Pollutant:	Not a 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(s):	–
Packing Group:	II
Label(s):	3
Marine Pollutant	Not a Marine Pollutant

15 REGULATORY INFORMATION

Occupational Safety and Health Act
Regulations for the Labeling and Hazard Communication of Hazardous Chemicals
Regulations Governing Road Traffic Safety
Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste
Standards of Permissible Exposure Limits at Job Site

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
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
Japan ISHL Listing:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Mexico INSQ:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Philippines PICCS:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory

Information Sources:

1. Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, information from the Toxicology Data Network (TOXNET), European Chemical Agency (ECHA) substance dossiers, IARC Monographs, US National Toxicology Program data, the Agency for Toxic Substances and Disease Registry, other manufacturer's SDSs and other sources, as appropriate.

Revision Information: Not relevant.
Issue Date: 10-13-2020
SDS No.:
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