SAFETY DATA SHEET

SDS00461
ACETONE

Preparation Date: 10/Nov/2020 Version: 4

1. IDENTIFICATION

Product identifier

Product Name ACETONE

Other means of identification

SDS Number SDS00461

Synonyms 2- Propanone, Dimethyl ketone.

Recommended use of the chemical and restrictions on use

Recommended Use Chemical intermediate

Restricted Uses No information available

Initial Supplier Identifier
Univar Canada Ltd.
9800 Van Horne Way
Richmond, BC V6X 1W5
Telephone: 1-866-686-4827

Emergency telephone number

24 Hour Emergency Phone Number (CANUTEC): 1-888-226-8832 (1-888-CAN-UTEC)

2. HAZARD IDENTIFICATION

Hazardous Classification of the substance or mixture

Flammable liquids	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3

Label elements

Hazard pictograms

Signal Word: Danger

Hazard statements
Highly flammable liquid and vapor
Causes serious eye irritation
May cause drowsiness or dizziness
May cause respiratory irritation

Precautionary Statements

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

Response

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 victim to fresh air and keep at rest in a position comfortable for breathing
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up

Disposal
Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations

Unknown acute toxicity No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No	Weight-% (W/W)	Synonyms
Acetone	67-64-1	80 - 100%	Acetone

Notes:

The actual percentage concentration has been withheld as a trade secret.

4. FIRST-AID MEASURES

Description of first aid measures

General advice
Show this safety data sheet to the doctor in attendance.

Inhalation
Remove to fresh air. IF exposed or concerned: Get medical advice/attention.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact
Wash skin with soap and water.

Ingestion
Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider
Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed:
Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Vapors are irritating to eyes. Contact with solution may cause moderate to severe eye irritation. Vapors are moderately irritating to the respiratory passages. Inhalation of high vapor concentrations may cause central nervous system depression resulting in dizziness, light headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.

Indication of any immediate medical attention and special treatment needed:

Note to physicians
Treatment based on sound judgment of physician and individual reactions of patient. Aspiration may cause pulmonary edema and pneumonitis.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use DRY chemicals, CO2, alcohol foam or water spray.

Specific hazards arising from the substance or mixture
Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up which could result in container rupture. Do not enter confined fire space without adequate protective clothing and an approved positive pressure self-contained breathing apparatus. Vapor forms a flammable / explosive mixture with air between upper and lower flammable limits. Always stay away from ends of containers due to explosive potential. Fight fire from maximum distance. Vapors may travel along ground and flashback along vapor trail may occur. This material may produce a floating fire hazard. Do not use water except as a fog. Extremely flammable. Acetone/water solutions that contain more than 2.5% acetone have flash points. When the acetone concentration is greater than 8% (by weight) in a closed container, it would be within the flammable range and cause fire or explosion if a source of ignition were introduced.

Hazardous combustion products
Decomposition products can include and are not limited to:. Carbon monoxide. Carbon dioxide.

Special protective equipment and precautions for fire-fighters
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.

Environmental precautions

See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so.

7. HANDLING AND STORAGE

Precautions for safe handling

Flammable. Launder contaminated clothing prior to reuse. Do not cut, drill, grind, weld or perform similar operations on or near containers. Empty containers may contain hazardous product residues. Fixed equipment as well as transfer containers and equipment should be grounded to prevent accumulation of static charge. Vapors may accumulate and travel to distant ignition sources and flashback. Hot surfaces may be sufficient to ignite liquid even in the absence of sparks or flames. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone. Do not pressurize drum containers to empty them. Avoid breathing vapors and prolonged or repeated contact with skin.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, away from heat and ignition sources. Use explosion-proof ventilation to prevent vapor accumulation. Bulk storage tanks should be diked. Vapors from tanks should not be released to atmosphere. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid). Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits .

Chemical Name	Alberta OEL	British Columbia OEL	Ontario	Quebec OEL	Exposure Limit - ACGIH	Immediately Dangerous to Life or Health - IDLH
Acetone 67-64-1	TWA: 500 ppm TWA: 1200	TWA: 250 ppm STEL: 500 ppm	TWA: 250 ppm STEL: 500 ppm	TWA: 500 ppm TWA: 1190	500 ppm STEL 250 ppm	2500 ppm

	mg/m³ STEL: 750 ppm STEL: 1800 mg/m³			mg/m³ STEL: 1000 ppm STEL: 2380 mg/m³	TLV-TWA	

Consult local authorities for recommended exposure limits

Appropriate engineering controls

Engineering controls
Electrical and mechanical equipment should be explosion proof. Local ventilation recommended where mechanical ventilation is ineffective in controlling airborne concentrations below the recommended occupational exposure limit. Make up air should always be supplied to balance air exhausted (either generally or locally). For personnel entry into confined spaces (i.e. bulk storage tanks) a proper confined space entry procedure must be followed including ventilation and testing of tank atmosphere. Concentrations in air should be maintained below lower explosive limit at all times or below the recommended threshold limit value if unprotected personnel are involved. Mechanical ventilation is recommended for all indoor situations to control fugitive emissions.

Individual protection measures, such as personal protective equipment

Eye/face protection
Chemical safety goggles and/or full face shield to protect eyes and face, if product is handled such that it could be splashed into eyes.

Hand protection
Appropriate chemical resistant gloves should be worn. Butyl rubber gloves. Ethyl Vinyl Alcohol Laminate (EVAL).

Skin and body protection
In confined spaces or where the risk of skin exposure is much higher, impervious clothing should be worn.

Respiratory protection
If exposure exceeds occupational exposure limits, use an appropriate NIOSH-approved respirator. Use a NIOSH-approved chemical cartridge respirator with organic vapor cartridges or use a NIOSH-approved supplied-air respirator. For high airborne concentrations, use a NIOSH -approved supplied-air respirator, either self-contained or airline breathing apparatus, operated in positive pressure mode.

General hygiene considerations
Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Physical state	Liquid
Color	Colorless
Odor	Pungent Fruity Characteristic
Odor threshold	No information available

PROPERTIES	**Values**	**Remarks • Method**
pH	7	
Melting point / freezing point	-94 °C / -137 °F	
Initial boiling point/boiling range	56.1 °C / 132.9 °F	None known
Flash point	-18 °C / 0 °F	Tag Closed Cup
Evaporation rate	11.6	
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		

Upper flammability limit:	12.6	
Lower flammability limit:	2.6	
Vapor pressure	>181 mm Hg @ 20°C	
Relative vapor density	2	
Specific Gravity	0.792	
Water solubility	Completely soluble	
Solubility in other solvents	No data available	
Partition coefficient	No data available	
Autoignition temperature	465 °C / 869 °F	
Decomposition temperature	No data available	None known
Kinematic viscosity	Dynamic: 0.32 mPa.s (0.32 centipoises) at 20°C	
Dynamic viscosity	No data available	None known
Explosive properties	No information available.	
Oxidizing properties	No information available.	
Molecular weight	58.08	
VOC Percentage Volatility	No information available	
Liquid Density	No information available	
Bulk density	No information available	

10. STABILITY AND REACTIVITY

Reactivity/Chemical Stability
Stable

Possibility of hazardous reactions
No additional remark.

Hazardous polymerization
Will not occur.

Conditions to avoid
Avoid excessive heat, open flames and all ignition sources. Direct sunlight.

Incompatible materials
Strong oxidizers. Strong acids and bases. Reducing agents. Aldehydes. Ammonia. Peroxides. Chlorine compounds. Acetone may form explosive mixtures with chromic anhydride, chromyl alcohol, hexachloromelamine, hydrogen peroxide, permonosulfuric acid, potassium tertbutoxide, and thioglycol.

Hazardous decomposition products
Decomposition products can include and are not limited to:. Carbon monoxide. Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Vapors are moderately irritating to the respiratory passages. Inhalation of high vapor concentrations may cause central nervous system depression resulting in dizziness, light headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.

Eye contact
Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Vapors are irritating to eyes. Contact with solution may cause moderate to severe eye irritation.

Skin contact
Specific test data for the substance or mixture is not available.

Ingestion
Specific test data for the substance or mixture is not available.

Information on toxicological effects

Symptoms
Acute skin contact with Acetone is either slightly irritating or not irritating, based on animal and limited human information. Prolonged or repeated contact may cause defatting of the skin and produce dermatitis (dryness, irritation, redness and cracking). Eye contact with vapor or liquid may cause mild - severe irritation and may cause corneal injury. Depending on the concentration, the effects of inhalation may be: irritation of the nose and throat, headaches, light-headedness and tiredness, dizziness, drunkenness, drowsiness, nausea and vomiting. Unconsciousness may result if exposure is extremely high (greater than 10000 ppm). Intolerable nose and throat irritation would also occur at these concentrations. Even higher concentrations can cause collapse, coma and death. Tolerance to the effects of acetone can develop. No effects or minor effects (slight drowsiness) are expected with ingestion. If acetone is aspirated (breathed into the lungs during ingestion or vomiting) it can cause severe, life-threatening lung injury. Animal information suggests that acetone would be difficult to aspirate because it evaporates so quickly. Based on its physical properties, acetone can be aspirated into the lungs during ingestion or vomiting. Acetone has increased the liver toxicity of chemicals, such as carbon tetrachloride, chloroform, trichloroethylene, bromodichloromethane, dibromochloromethane, N-nitrosodimethylamine and 1,1,2-trichloroethane, the lung toxicity of styrene and the toxicity of acetonitrile and 2,5-hexanedione in laboratory animals. It appears to inhibit the metabolism and elimination of ethyl alcohol, thereby potentially increasing its toxicity. Acetone can either increase or decrease the toxicity of 1,2-dichlorobenzene, depending on the concentration of acetone used.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	5,800.00 mg/kg
ATEmix (dermal)	15,715.70 mg/kg

Unknown acute toxicity No information available

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone 67-64-1	= 5800 mg/kg (Rat)	> 15700 mg/kg (Rabbit)	= 50100 mg/m³ (Rat) 8 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation
No information available.

Serious eye damage/eye irritation
Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Vapors are irritating to eyes. Contact with solution may cause moderate to severe eye irritation.

Respiratory or skin sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Acetone 67-64-1	Not available	Not available	Not available	Not available

Reproductive toxicity
The available information suggests that inhalation of Acetone can cause fetotoxicity in rats and mice and embryotoxicity in mice, but only in the presence of maternal toxicity. Negative mutagenicity results have been obtained in tests using cultured mammalian cells and bacteria. Sperm effects have been observed in rats already experiencing kidney damage. No effects on fertility have been observed.

Specific target organ systemic toxicity - single exposure
May cause drowsiness or dizziness.

Specific target organ systemic toxicity - repeated exposure
No information available.

Aspiration hazard
No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity
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Chemical Name	Ecotoxicity - Freshwater Algae Data	Ecotoxicity - Fish Species Data	Toxicity to microorganisms	Crustacea
Acetone 67-64-1	Not available	4.74 - 6.33 mL/L LC50 (Oncorhynchus mykiss) 96 h 6210 - 8120 mg/L LC50 (Pimephales promelas) 96 h static 8300 mg/L LC50 (Lepomis macrochirus) 96 h	Not available	EC50: 10294 - 17704mg/L (48h, Daphnia magna) EC50: 12600 - 12700mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation No information available.

Component Information

Chemical Name	Partition coefficient
Acetone 67-64-1	-0.24

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Recover or recycle if possible.

Empty containers should be recycled or disposed of through an approved waste management facility. Drain container

thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums.

14. TRANSPORT INFORMATION

TDG (Canada):

UN Number	UN1090
Shipping name	ACETONE
Class	3
Packing Group	II
Marine pollutant	No.

DOT (U.S.)

UN Number	UN1090
Shipping name	Acetone
Class	3
Packing Group	II
Marine pollutant	Not available

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Regulatory Rules

Chemical Name	CERCLA/SARA - Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA - Section 313:
Acetone - 67-64-1	Not Listed	Listed	Not Listed

International Inventories

TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.
DSL/NDSL	All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

16. OTHER INFORMATION

NFPA:	**Health hazards** 1	**Flammability** 3	**Instability** 0	**Physical and chemical properties** -
HMIS:	**Health hazards** 1	**Flammability** 3	**Physical hazards** 0	**Personal protection** X

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Prepared By: The Environment, Health and Safety Department of Univar Canada Ltd.

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End of Safety Data Sheet