



Safety Data Sheet according to Globally Harmonized System (GHS)



Printing date 2022-09-02

Revision: 2022-09-02

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** Acetone
- **Synonyms:**
Propanone, Propan-2-one, Dimethyl ketone, β -Ketopropane, 2-Propanone, Dimethyl formaldehyde
- **CAS Number:**
67-64-1
- **Relevant identified uses of the substance or mixture and uses advised against :**
- **Identified/Recommended uses:**
Solvents
Chemical for synthesis
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Taiwan Prosperity Chemical Corporation, Linyuan
No.9, Gongye 3rd Rd., Linyuan Dist., Kaohsiung City 83245 Taiwan (R.O.C)
Tel: +886-7-6431247 ext 603 Fax: +886-7-6425426
- **Further information obtainable from:** SDS-info@ccp.com.tw
- **Emergency telephone number:** During normal opening times: +886-7-6431247 (8:30-17:30; GMT+8)

2 Hazards identification

- **Classification of the substance or mixture:**
Flam. Liq. 2 H225 Highly flammable liquid and vapour.
Eye Irrit. 2A H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.
- **Label elements:**
- **Hazard pictograms:**

GHS02 GHS07
- **Signal word:** Danger
- **Hazard statements:**
Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause drowsiness or dizziness.
- **Precautionary statements:**
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.
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.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Other hazard:** None known.



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3 Composition/information on ingredients

- **Chemical characterisation: Substances**
- **CAS No. Description**
67-64-1 Acetone 99.5%

4 First aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Rinse cautiously with water for several minutes.
Take off contaminated clothing.
Immediately rinse with water.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **Most important symptoms and effects, both acute and delayed:**
Irritant effects
Dizziness
Headache
Narcosis
Gastric or intestinal disorders
Sensitivity to light
- **Indication of any immediate medical attention and special treatment needed**
Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Can form explosive gas-air mixtures.
Vapours are heavier than air and may spread along floors.
- **Advice for firefighters**
- **Protective equipment:** Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
- **Environmental precautions:**
Dilute with plenty of water.

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- Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Read label before use.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not get in eyes, on skin, or on clothing.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Work only in fume cupboard.
- **Information about fire - and explosion protection:**
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Fumes can combine with air to form an explosive mixture.
Keep ignition sources away - Do not smoke.
Use explosion-proof apparatus / fittings and spark-proof tools.
Protect against electrostatic charges.
Protect from heat.
- **Storage:**
- **Conditions for safe storage, including any incompatibilities** Store in a cool location.
- **Further information about storage conditions:**
Recommended storage temperature: 15-25 °C
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:**
Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines.
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
- **Control parameters**

Ingredients with limit values that require monitoring at the workplace:**67-64-1 acetone**

PEL (USA)	Long-term value: 2400 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 590 mg/m ³ , 250 ppm
TLV (USA)	Short-term value: 500 ppm Long-term value: 250 ppm A4, BEI
IOELV (EU)	Long-term value: 1210 mg/m ³ , 500 ppm
OELV (Korea)	Short-term value: 750 ppm Long-term value: 500 ppm

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Ingredients with biological limit values:	
67-64-1 acetone	
BEI (USA)	25 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)

Personal protective equipment:**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Be sure to clean skin thoroughly after work and before breaks.

Ensure that washing facilities are available at the work place.

Respiratory protection:

Short term filter device:

Filter AX

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:

Protective gloves

The selected protective gloves have to satisfy the specifications of standard EN 374 or its equivalent.

Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility etc) is noticed.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

Full Contact:

Ethyl vinyl alcohol laminate (EVAL)

Butyl rubber, BR

Splash Contact:

Neoprene gloves

Natural rubber, NR

Recommended thickness of the material: ≥ 0.7 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

Full Contact:

Break through time: > 480 min

Splash Contact:

Break through time: > 10 min

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Not suitable are gloves made of the following materials:

Nitrile rubber, NBR

PVA gloves

PVC gloves

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· Eye protection:

Tightly sealed goggles

Safety glasses with side shields conforming to EN166, ANSI 87.1-2010, or equivalent.

· Body protection:

Flame retardant antistatic protective clothing.

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9 Physical and chemical properties

· Information on basic physical and chemical properties**· General Information****· Appearance:****Form:** Liquid**Colour:** Colourless**· Odour:** Characteristic**· Odour threshold:** Not determined.**· pH-value:** Not determined.**· Melting point/freezing point:** -94.7 °C**· Initial boiling point and boiling range:** 55 °C**· Flash point:** -18 °C (closed cup)**· Flammability (solid, gas):** Not applicable.**· Ignition temperature:** 465 °C**· Decomposition temperature:** Not determined.**· Auto-ignition temperature:** Not determined.**· Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.**· Explosion limits:****Lower:** 2.6 Vol %**Upper:** 13 Vol %**· Vapour pressure at 20 °C:** 233 hPa**· Density at 20 °C:** 0.79 g/cm³**· Relative density** Not determined.**· Vapour density** Not determined.**· Evaporation rate** Not determined.**· Solubility in / Miscibility with****water:** Fully miscible.**· Partition coefficient: n-octanol/water:** Not determined.**· Viscosity:****Dynamic:** Not determined.**Kinematic:** Not determined.**VOC (EC)** 99,50 %

10 Stability and reactivity

· Reactivity: When properly handled and stored, no dangerous reaction is known.**· Chemical stability:** This product is stable under prescribed use and storage.

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- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**
Exothermic reaction with:
Phosphorus oxychloride
Bromine alkali metal
sulphur dichloride
Reacts with halogenated compounds.
Danger of explosion.
Risk of explosion with:
halogen compound
Chloroform.
Nonmetallic oxyhalides
nitrosyl compound
Peroxi compounds

Risk of ignition or formation of flammable gases or vapours with:
Chromium (VI) oxides
chromosulfuric acid
chlorosulfonic acid
Nitric acid
Strong oxidizing agents
strong reducing agents
Fluorine
- **Conditions to avoid:** Protect from heat. Keep ignition sources away.
- **Incompatible materials:**
strong reducing agents
Amines.
Strong oxidizing agents
rubber
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity** Not classified based on available data.

LD/LC50 values relevant for classification:**67-64-1 acetone**

Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)

- **Skin corrosion/irritation:**
Not classified based on available data.
Repeated exposure may cause skin dryness or cracking.
- **Serious eye damage/eye irritation:**
Causes serious eye irritation.
Rabbit: irritating to the eye (OECD 405)
- **Respiratory or skin sensitization:** Not classified based on available data.
- **Germ Cell Mutagenicity:** Not classified based on available data.
- **Carcinogenicity:** Not classified based on available data.
- **Reproductive Toxicity:** Not classified based on available data.
- **Specific Target Organ Toxicity - Single Exposure (STOT SE):** May cause drowsiness or dizziness.
- **Specific Target Organ Toxicity - Repeated Exposure (STOT RE):**
Not classified based on available data.
- **Aspiration Hazard:** Not classified based on available data.

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- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritating effect.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:**
Not classified based on available data.
NOEC (fish, 96hr)= 7163 (OECD OECD 203)
LC50 =2400 mg/L (shrimp, 24hr)
ErC50 (alga, 8d): 530 mg/L (OECD N/A)
NOEL (Daphnia Magna, 21d)= 20 mg/l (OECD N/A)
- **Persistence and degradability**
Easily biodegradable
Degradation : 84% (5d, OECD APHA standard method No. 219)
- **Bioaccumulative potential**
Bioconcentration Factor (BCF) = 3 (est. BCFWIN v2.17)
Partition coefficient, n-octanol/water (log Kow) : -0.23
- **Mobility in soil** Henry's Law Constant (H) : 2.929 Pa m³ mol⁻¹ (@25 °C)
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Any disposal method should also comply with national, regional, provincial, and local laws.
- **Uncleaned packaging:**
- **Recommendation:**
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

- **UN-Number**
- **ADR, IMDG, IATA** UN1090
- **UN proper shipping name**
- **ADR** 1090 ACETONE
- **IMDG, IATA** ACETONE

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- Transport hazard class(es)
- ADR, IMDG, IATA



- Class 3 Flammable liquids.
- Label 3
- Packing group II
- ADR, IMDG, IATA II
- Environmental hazards: Not applicable.
- Special precautions for user Warning: Flammable liquids.
- Hazard identification number (Kemler code): 33
- EMS Number: F-E,S-D
- Stowage Category E

Transport/Additional information:

- ADR
- Limited quantities (LQ) 1L
- Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
- Transport category 2
- Tunnel restriction code D/E

- IMDG
- Limited quantities (LQ) 1L
- Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
- UN "Model Regulation": UN 1090 ACETONE, 3, II

15 Regulatory information**Status of global inventories:**

All component(s) within this product is listed or exempted from the following country's chemical inventory:

USA – TSCA
Australia – AICS
Canada – DSL
China – IECSC
EU – EINECS/NLP
Japan – ENCS
Korea – KECI
New Zealand – NZIoC
Philippines – PICCS
Taiwan – TCSI
Mexico - INSQ
Vietnam – NCI
Thailand - TECI

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16 Other information**· Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· Sources

Most toxicological and eco-toxicological data are obtained from European Chemical Agency (ECHA)'s public dissemination website.

<https://echa.europa.eu/registration-dossier/-/registered-dossier/15460>

· General Disclaimers:

CCP Group recommends that all the users/customers/recipients to study this Safety Data Sheet (SDS) carefully and understand all the data or any potential hazards associated with this product. Please consult with appropriate expert if necessary. The information herein is provided in good faith and is believed to be accurate on the date of issue. No warranty, expressed or implied, is given. It is the customer's/user's responsibility to ensure that they are complying with local, regional, state, provincial, and/or national laws in using this product, as regulatory requirement may differ at each level. It is also the customer's/user's responsibility to determine the necessary condition required for using this product safely, as actual operating or usage conditions are beyond CCP Group's control. CCP Group will not be responsible for any SDS obtained from elsewhere other than from CCP Group. If you are unsure whether the SDS you have is current or have obtained the SDS from another source; please contact us to obtain the latest version.

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