Safety Data Sheet
Cyclohexanone

Version 1.3 Revision Date: 11/10/2021

SECTION 1. IDENTIFICATION

Product name : Cyclohexanone

Synonyms : No data available

Recommended use of the chemical and restrictions on use

Recommended use : Industrial chemical
Solvent.

Restricted Uses : No data available

Manufacturer or supplier's details

Company : Univar Solutions Canada Ltd.
Address 9800 Van Horne Way
Richmond, BC V6X1W5
Canada

Emergency telephone number:
Local Emergency Contact : During Office hours Monday-Friday, 8.00 am - 4.30 pm (Pacific Standard Time) : 1-866-686-4827

Additional Information: : Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARD IDENTIFICATION

Hazardous Classification of the substance or mixture

Flammable liquids : Category 3

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Acute toxicity (Dermal) : Category 3

Skin irritation : Category 2

Serious eye damage : Category 1

Label elements

Hazard pictograms :

Signal word	:	Danger
Hazard statements	:	H226 Flammable liquid and vapour. H302 + H332 Harmful if swallowed or if inhaled. H311 Toxic in contact with skin. H315 Causes skin irritation. H318 Causes serious eye damage.
Precautionary statements	:	**Prevention:** P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting equipment. P242 Use non-sparking tools. P243 Take action to prevent static discharges. P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ eye protection/ face protection. **Response:** P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P361 + P364 Take off immediately all contaminated clothing and wash it before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. **Storage:** P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. **Disposal:** P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Substance

Hazardous components

CAS-No.	Chemical name	% by Weight	Synonyms
108-94-1	Cyclohexanone	80 - 100	cyclohexanone

The exact ranges of this mixture are being withheld due to a Trade Secret.

Molecular formula : C6H10O

SECTION 4. FIRST-AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.

In case of skin contact : If on skin, rinse well with water.
If on clothes, remove clothes.
If skin irritation persists, call a physician.

In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
Take victim immediately to hospital.

If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Do not induce vomiting without medical advice.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Specific extinguishing methods : Use a water spray to cool fully closed containers.

Further information : Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.
Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapours/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	No smoking. Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
108-94-1	Cyclohexanone	TWA	20 ppm 80 mg/m3	CA AB OEL
		STEL	50 ppm 200 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		STEL	50 ppm	CA BC OEL
		TWAEV	25 ppm 100 mg/m3	CA QC OEL

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
In the case of vapour formation use a respirator with an approved filter.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Clear, Colorless, light yellow

Odour : characteristic, acetone-like, mint-like

Odour Threshold	:	0.12 ppm
pH	:	Not applicable
Freezing Point (Melting point/freezing point)	:	-47 - -26 °C (-53 - -15 °F)
Boiling Point (Boiling point/boiling range)	:	130 - 170 °C (266 - 338 °F) (1013.33 hPa)
Flash point	:	44 °C (111 °F) Method: closed cup
Evaporation rate	:	< 1 (Butyl Acetate = 1)
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	9.4 - 12.75 %(V)
Lower explosion limit	:	1 %(V)
Vapour pressure	:	< 4 mmHg @ 20 °C (68 °F)
Relative vapour density	:	3.4 @ 20 - 25 °C (68 - 77 °F) (Air = 1.0)
Relative density	:	0.946 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	:	0.95 g/cm3 @ 20 °C (68 °F)
Bulk density	:	7.88 lb/gal
Solubility(ies) Water solubility	:	150 g/l slightly soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	log Pow: 0.81 - 0.86
Auto-ignition temperature	:	420 °C
Thermal decomposition	:	No data available
Viscosity Viscosity, kinematic	:	2 mm2/s

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No hazards to be specially mentioned.
Conditions to avoid	:	Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	:	Strong acids Strong bases Strong oxidizing agents Nitric acid Peroxides hydrogen peroxide
Hazardous decomposition products	:	Nitrogen oxides (NOx) Smoke Hydrocarbons carbon dioxide and carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: 1,909 mg/kg
Acute inhalation toxicity	:	Acute toxicity estimate: 11.11 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	:	Assessment: The component/mixture is toxic after single contact with skin.

Components:

108-94-1:

Acute oral toxicity	:	LD50 (Rat): 1,890 mg/kg Assessment: The component/mixture is moderately toxic after single ingestion.
Acute inhalation toxicity	:	LC50 (Rat): 15 mg/l Test atmosphere: vapour Assessment: The component/mixture is moderately toxic after short term inhalation.
Acute dermal toxicity	:	LD50 (Rabbit): 946 mg/kg Assessment: The component/mixture is moderately toxic after single contact with skin.

Skin corrosion/irritation

Components:

108-94-1:
Species: Rabbit
Exposure time: 4 h
Result: Irritating to skin.

Serious eye damage/eye irritation

Components:

108-94-1:
Species: Rabbit
Result: Risk of serious damage to eyes.
Exposure time: 24 h

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:

Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

Product:

Biodegradability : Biodegradation: > 60 %
Remarks: Readily biodegradable

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological infor- : No data available

mation

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

TDG (Transportation of Dangerous Goods):
UN1915, CYCLOHEXANONE, 3, III

IATA (International Air Transport Association):
UN1915, CYCLOHEXANONE, 3, III

IMDG (International Maritime Dangerous Goods):
UN1915, CYCLOHEXANONE, 3, III, Flash Point:44 °C(111 °F)

Special Notes:	:	The flash point for this material is greater than 100 F (38 C). Therefore, in accordance with 49 CFR 173.150(f) non-bulk containers (<450L or <119 gallon capacity) of this material may be shipped as non-regulated when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant, or specifically listed as a hazardous substance.

SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR.

The components of this product are reported in the following inventories:

TSCA	:	On TSCA Inventory
DSL	:	On the inventory, or in compliance with the inventory
AICS	:	On the inventory, or in compliance with the inventory

NZIoC	:	On the inventory, or in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PHIL	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions EHS Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 11/10/2021

Legacy SDS: : R0000746

Material number:
16184813, 16168143, 16152717, 16146690, 16153002, 16167588, 16161501, 16157453, 16151107, 16149656, 16160448, 16157740, 16151661, 16144945, 16140316, 16142738, 16120379, 16055962, 704071, 20155, 55078, 53680, 87839, 70677, 70847, 70566, 86419, 69093, 16102230, 16055963, 16062071, 54100, 70850, 103609, 69373, 103328, 20158, 20153, 20157

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances

MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50		Lethal Concentration 50%	