

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2023

Reviewed on 04/04/2023

1 Identification

- **Product identifier**
- **Formule moleculaire** C₈ H₈ O
- **Trade name:** Acetophenone
- **Article number:** CH0477
- **CAS Number:**
98-86-2
- **EC number:**
202-708-7
- **Index number:**
606-042-00-1
- **Application of the substance / the mixture** Chemicals products for laboratory
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
CARLO ERBA REAGENTS
Chaussée du Vexin
Parc d'Affaires des Portes - BP616
27106 VAL DE REUIL Cedex
Téléphone: +33 (0)2 32 09 20 00
Télécopie: +33 (0)2 32 09 20 20
- **Information department:**
Q.A / Normative
email: MSDS_CER-SDS@cer.dgroup.it
- **Emergency telephone number:**
US 911
CHEMTREC 1-800-424-9300 (Staffed 24/7)
American Association of Poison Control Centers 1-800-222-1222 (Staffed 24/7)

2 Hazard(s) identification

- **Classification of the substance or mixture**



Harmful if swallowed.

Causes serious eye irritation.

Combustible liquid.

- **Label elements**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard statements**

Combustible liquid.

Harmful if swallowed.

Causes serious eye irritation.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2023

Reviewed on 04/04/2023

Trade name: Acetophenone

(Contd. of page 1)

Precautionary statements

Keep away from flames and hot surfaces. – No smoking.
 Wash contaminated body parts thoroughly after handling.
 Wear protective gloves / eye protection / face protection.
 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.
 Store in a well-ventilated place. Keep cool.

Classification system:
NFPA ratings (scale 0-4)

Other hazards
Results of PBT and vPvB assessment

 · **PBT:** Not applicable.

 · **vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances
CAS No. Description

CAS: 98-86-2 Acetophenone

Identification number(s)

 · **EC number:** 202-708-7

 · **Index number:** 606-042-00-1

4 First-aid measures

Description of first aid measures
General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

 · **After inhalation:** Supply fresh air; consult doctor in case of complaints.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact:

Rinse opened eye for several minutes under running water.

Seek immediate medical advice.

 · **After swallowing:** If symptoms persist consult doctor.

 · **Information for doctor:** Show the doctor this Material Safety Data Sheet.

 · **Most important symptoms and effects, both acute and delayed** No further relevant information available.

 · **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

-US-

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2023

Reviewed on 04/04/2023

Trade name: Acetophenone

(Contd. of page 2)

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.
- **Special hazards arising from the substance or mixture** Carbon monoxide and carbon dioxide
- **Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- **Environmental precautions:**
Do not allow to penetrate the ground/soil.
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).
Dispose contaminated material as waste according to section 13.
- **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.
- **Protective Action Criteria for Chemicals**
- **PAC-1:** 30 ppm
- **PAC-2:** 330 ppm
- **PAC-3:** 2000* ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Store in cool, dry place in tightly closed receptacles.
Ensure good ventilation/exhaustion at the workplace.
Pneumatic conveyance only with nitrogen.
- **Information about protection against explosions and fires:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

US

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2023

Reviewed on 04/04/2023

Trade name: Acetophenone

(Contd. of page 3)

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**

 · **Components with limit values that require monitoring at the workplace:**
CAS: 98-86-2 Acetophenone

TLV Long-term value: 10 ppm

WEEL Long-term value: 10 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Avoid contact with the eyes.

- **Breathing equipment:** Use suitable respiratory protective device only when aerosol or mist is formed.

- **Protection of hands:** Rubber gloves

- **Material of gloves**

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.

Neoprene gloves

- **Penetration time of glove material**

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

- **Eye protection:**



Tightly sealed goggles

- **Limitation and supervision of exposure into the environment**

In case of unintended release of the product: See section 6 of the Safety Data Sheet.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

General Information 120.15 g

- **Appearance:**

Form: Fluid

Color: Colorless

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: 20.5 °C (68.9 °F)

Boiling point/Boiling range: 202.6 °C (396.7 °F)

- **Flash point:** 77 °C (170.6 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Auto igniting:** 535 °C (995 °F)

- **Decomposition temperature:** Not determined.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2023

Reviewed on 04/04/2023

Trade name: Acetophenone

(Contd. of page 4)

- **Ignition temperature:** Not determined.
 - **Danger of explosion:** Not determined.
 - **Explosion limits:**
 - Lower:** 1.1 Vol %
 - Upper:** Not determined.
 - **Vapor pressure at 20 °C (68 °F):** 0.4 hPa (0.3 mm Hg)
 - **Vapor pressure (2) at 30 °C (86 °F):** 0.8 hPa (0.6 mm Hg)
 - **Density at 20 °C (68 °F):** 1.03 g/cm³ (8.59535 lbs/gal)
 - **Relative density** Not determined.
 - **Vapor density** Not determined.
 - **Evaporation rate** Not determined.
 - **Solubility in / Miscibility with**
 - Water at 20 °C (68 °F):** 5.5 g/l
 - **organic solvents:** Soluble in many organic solvents.
-
- **Partition coefficient (n-octanol/water):** Not determined.
 - **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
-
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** See 10.3
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
 - Can react violently with oxygen rich (oxidizing) material. Danger of Explosion.
- **Conditions to avoid** Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- **Incompatible materials:** Strong bases.
- **Hazardous decomposition products:** Carbon monoxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
Oral	LD50	815 mg/kg (rat)
- **Primary irritant effect:**
 - on the skin:** No irritant effect.
 - on the eye:**
 - Strong irritant with the danger of severe eye injury.
 - Causes serious eye irritation.
- **Sensitization:** No sensitizing effects known.
- **Other information (about experimental toxicology):** No further relevant information available.
- **Additional toxicological information:**
 - **Carcinogenic categories**
 - **IARC (International Agency for Research on Cancer)** Substance is not listed.
 - **NTP (National Toxicology Program)** Substance is not listed.

(Contd. on page 6)

Safety Data Sheet acc. to OSHA HCS

Printing date 04/04/2023

Reviewed on 04/04/2023

Trade name: Acetophenone

(Contd. of page 5)

· **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Other information:** The product is easily biodegradable.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** BOD5/ThOD = 32% BOD10/ThOD = 86%
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Contact waste processors for recycling information.
- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.
Wash with solvents to be incinerated.
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

- | | |
|-------------------------------------|--|
| · UN-Number | Void |
| · DOT, ADN, IMDG | UN3334 |
| · IATA | |
| · UN proper shipping name | Void |
| · DOT, ADN, IMDG | Aviation regulated liquid, n.o.s. (Acetophenone) |
| · IATA | |
| · Transport hazard class(es) | |
| · DOT, ADN, IMDG | Void |
| · Class | |

(Contd. on page 7)

Safety Data Sheet acc. to OSHA HCS

Printing date 04/04/2023

Reviewed on 04/04/2023

Trade name: Acetophenone

(Contd. of page 6)

· **IATA**



· **Class** 9 Miscellaneous dangerous substances and articles
 · **Label** 9

· **Packing group** Void
 · **DOT, IMDG** Void
 · **IATA** III

· **Environmental hazards:**
 · **Marine pollutant:** No

· **Special precautions for user** Not applicable.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **UN "Model Regulation":** Void

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **SARA Section 355 (extremely hazardous substances)** Substance is not listed.
- **SARA Section 313 (specific toxic chemical listings)** Substance is listed.
- **TSCA (Toxic Substances Control Act)** ACTIVE
- **Hazardous Air Pollutants** Substance is listed.
- **Prop 65 - Chemicals known to cause cancer** Substance is not listed.

- **Carcinogenicity categories**
- **EPA (Environmental Protection Agency) D**
- **TLV (Threshold Limit Value)** Substance is not listed.
- **MAK (German Maximum Workplace Concentration)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **National regulations:**

· **Technical instructions (air):**

Class	Share in %
NK	50-100

- **Water hazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Q.A / Normative
- **Date of preparation / last revision** 04/04/2023
- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 04/04/2023

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Trade name: Acetophenone

(Contd. of page 7)

ICAO: International Civil Aviation Organisation

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

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

IMO : International Maritime Organization

Flammable Liquids 4: Flammable liquids – Category 4

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

· **Sources**

Globally Harmonized System, GHS

ADR/RID, IMDG, IATA

PubChem : an open chemistry database at the National Institutes of Health (NIH)

ECHA : European CHEmicals Agency

· * **Data compared to the previous version altered.** .