

MATERIAL SAFETY DATA SHEET - MSDS

1. Identification of the substance/preparation and of the company/undertaking

Identification of the product:

Name of material: Acetone, Art.Nr.: 30004, Innerpackage: Glass Bottle

Use of the substance/preparation:

solvents, analytical chemistry, synthesis of organic products, photography.

Company:

Manufacturer/supplier identification:

Gatt-Koller GmbH

Swarovskistrasse 74

A-6067 Absam

Tel.: 0043-5223-44216-0

Fax.: 0043-5223-43216

Emergency Telephone:

Tel.: 0049-551-19240

2. Hazards identification

Pictogram



Signal word Danger

Classification of the substance or mixture

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Hazards classification for the substance according to the european directives:

Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

3. Composition/information on ingredients

Identification and amount of the components:

Synonyms: Dimethyl ketone. 2-Propanone

CAS: 67-64-1

Molecular weight: 58.08

EC index no.: 606-001-00-8

EC number: 200-662-2

Formula: C₃H₆O

4. First aid measures

After inhalation: Fresh air. If necessary, apply mechanical ventilation or mouth-to-mouth resuscitation. Keep airways free.

After skin contact: wash off with plenty of water. Remove contaminated clothing.

After ingestion: plenty of water to drink. Avoid vomiting (risk of aspiration). Summon doctor.

Subsequently administer: Activated charcoal (20 - 40 g in 10% slurry).

Laxative: Sodium sulfate (1 tablespoon/ 1/4 l water).

Instructions for the doctor: After ingestion (large amounts): Gastric lavage.

After eye contact: rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Summon eye specialist.

5. Fire-fighting measures

Suitable extinguishing media: Powder, foam.

Special risks: combustible. Vapours heavier than air. Formation of explosive mixtures possible with air at

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normal temperatures. Formation of combustion gases or dangerous vapours possible in event of fire.

Special protective equipment for fire fighting: Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Further information: Keep away from sources of ignition. Prevent fire-fighting water from entering surface water or groundwater. Cool container with spray water from a safe distance. Contain escaping vapours with water.

6. Accidental release measures

Person-related precautionary measures: Avoid substance contact. Do not inhale vapours/aerosols. Ensure supply of fresh air in enclosed rooms.

Environmental precautions: Do not allow to enter sewerage system (risk of explosion!).

Procedures for cleaning / absorption: Take up with liquid-absorbent material. Forward for disposal. Clean up.

7. Handling and storage

Handling: Take measures to prevent electrostatic charging. Keep away from sources of ignition. Avoid generation of vapours/aerosols. Do not inhale substance. Work under hood .

Storage: Tightly closed in a well-ventilated place, away from sources of ignition and heat. Store at + 15°C to + 25°C.

8. Exposure controls/personal protection

Exposure limit values: (MAK, Germany): 500 ml/m³ , 1200 mg/m³

Exposure controls:

Occupational exposure controls: The personal protective equipment must be selected according to the working place, based on the concentration and amount of the dangerous substance. The supplier should indicate the stability of the personal protective equipment to chemical reagents.

Respiratory protection: required when vapours/aerosols are generated. Filter: AX (NE371)

Hand protection: required

Eye protection: required

Skin protection: Application of skin- protective barrier cream recommended.

Industrial hygiene: Immediately change contaminated clothing. Wash hands and face after working with substance. Work under hood . Do not inhale substance.

9. Physical and chemical properties

General information:

Form: liquid

Colour: colourless

Odour: fruit-like

Important health, safety and environmental information:

pH value: (395 g/l H₂O, 20 °C) 5 - 6

Boiling temperature: 56 °C

Flash point: < -20 °C

Explosion limits (low): 2,6 Vol%

Explosion limits (high): 13 Vol%

Vapour pressure: (20 °C) 233 hPa

Density (20 °C): 0,79 g/cm³

Solubility in water: (20 °C): miscible

Solubility in:

ethanol: miscible

ether: miscible

Partition coefficient n-octanol/water: log P(o/w): -0,24 (experimentally)

Viscosity: (25 °C) 0,31 mPas

Relative vapour density: 2,01

Refractive index: (n 20 °C/D) 1,35868

Melting temperature: -95 °C

Ignition temperature: 540 °C

10. Stability and reactivity

Conditions to be avoided: Heating

Substances to be avoided: halogens, halogenated hydrocarbons, halogen-halogen compounds, alkali

hydroxides, halogen oxides, metals, nitrosyl compounds, oxidizing agents (i.a.: chromates, nitric acid, peroxi compounds), ethanolamine.

Hazardous decomposition products: peroxi compounds.

Further information: solvents, sensitive to air, light-sensitive.

Unsuitable working materials: rubber, various plastics.

Explosible with air in a vaporous/gaseous state.

11. Toxicological information

Acute toxicity:

LD₅₀(oral, rat): 5800 mg/kg

LC₅₀ (inhalation, rat): 76 mg/l /4h.

LD₅₀ (dermal, rabbit): 20000 mg/kg

Specific symptoms in animal studies:

Skin irritation test (rabbit): irritations

Eye irritation test (rabbit): irritations

Subacute to chronic toxicity:

Impairment of reproductive performance in animal experiments.

Sensibilization test (Guinea pig): negative

Carcinogenicity: Noncarcinogenic in animal experiments.

Mutagenicity:

Bacterian mutagenicity:

Salmonella typhimurium: negative

E. Coli: negative

Bacillus subtilis: negative

Ames-Test: negative

Further toxicological information:

After inhalation: mucosal irritations, drowsiness, drowsiness. In high concentrations: headache, nausea,

vomiting, dizziness, salivation, narcosis.

Cannot be excluded: coma

After skin contact: Slight irritations. Degreasing effect on the skin, resulting in rough and chapped skin.

After eye contact: irritations. Risk of corneal clouding.

After ingestion: Symptoms in: gastrointestinal tract, headache, salivation, nausea, vomiting, dizziness, narcosis; coma.

Further information:

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Ecotoxic effects:

Fish toxicity: L. macrochirus CL₅₀: 8300 mg/l /96h.

Daphnia toxicity: Daphnia magna EC₅₀: 12600 - 12700 mg/l /48h.

Algeal toxicity: Sc. quadricauda IC₅: 7500 mg/l /8d.

Bacterial toxicity:

M. aeruginosa CE₅: 530 mg/l /8d.

Ps. putida CE₅: 1700 mg/l /16h.

Protozoa toxicity: E. sulcatum EC₅: 28 mg/l /72h.

Mobility: log P(o/w): -0,24 (experimentally)

Bioaccumulative potential: Non bioaccumulative.

Bioconcentration factor: 0,69

Persistence and degradability:

Biological degradability: 91% /28d.

Biological degradability: good

Further ecologic data:

No ecological problems are to be expected when the product is handled and used with due care and attention.

13. Disposal considerations

Product: There are no uniform EU Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EU member countries through corresponding laws and regulations. We recommend that you contact either the

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authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

Packaging: Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

14. Transport information

Road transport:

UN-No: 1090

ADR class: 3 II

Correct technical name: ACETONE

Sea transport:

UN-No: 1090

IMDG class: 3 II

Correct technical name: ACETONE

Air transport:

UN-No: 1090

IATA/ICAO class: 3 II

Correct technical name: ACETONE

15. Regulatory information

Classification of the substance or mixture Label elements

Pictogram



Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P305 + P351 + P338

P501 Dispose of contents/container to ...

EC-classification: This product has been included in the dangerous substances index with its corresponding EC index number, so it has been classified according to the 67/548/EEC directive and its later adaptations.

Symbol: F (Highly flammable), Xi (Irritant)

R-phrases: 11-36-66-67 Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

S-phrases: 9-16-26-33-60 Keep container in a well ventilated place. Keep away from sources of ignition – No Smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take precautionary measures against static discharges. This material and/or its container must be disposed of as hazardous waste.

EC-Index-No: 606-001-00-8

German regulations

Water pollution class

1 (slightly polluting substance) VwVwS Anh. 2 KennNr. 6

Storage class VCI

3 A

16. Other information

Date: 21/12/2006

The information supplied in this data sheet, is based on the present state of our knowledge. The purpose

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of this information, is only to describe the security measures to follow in the handling of the product. Therefore it does not represent a guarantee about the properties of the product.

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