

Material Safety Data Sheet

CYCLOHEXANONE (RXSOL-60-6604-392)



1. Product and Company Identification

Product Name	RXSOL-60-6604-383
Product Type	CYCLOHEXANONE
Revised date	22-06-2024

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
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2. Composition / information on ingredients

2.1. Substance : CYCLOHEXANONE

CAS No : 108-94-1

Substance Contains no other components or impurities which will influence the classification of the product.

3. Hazards Identification

3.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, H226

Category 3

Acute toxicity (inhal.), H332

Category 4

Full text of classification categories and H statements : see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R20

R10

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

3.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Extra labelling to display

Extra classification(s) to display

Symbol(s) : Xn : Harmful

Highly flammable

R Phrase(s) : R10 : Flammable.

R20 : Harmful by inhalation.

S Phrase(s) : S2 : Keep out of the reach of children.

S25 : Avoid contact with eyes.

Hazard pictograms

Signal word : Warning

Hazard statements : H226 - Flammable liquid and vapour

H332 - Harmful if inhaled

3.3. Other hazards

No additional information available

4. First Aid Measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice. First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Harmful if inhaled.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

5. Fire-fighting Measures

5.1. Extinguishing media

Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

No additional information available

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Stop release.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

No additional information available

7. Handling and Storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : No naked lights. No smoking. Take precautionary measures against static discharge.

Use only non-sparking tools.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment.

Storage conditions : Keep container tightly closed. Store in original container. Store in a dry place.

Incompatible materials : Heat sources.

7.3. Specific end use(s)

No additional information available

8. Exposure controls and personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection : protective gloves

Eye protection : Chemical goggles or safety glasses

Skin and body protection : Wear suitable protective clothing

Respiratory protection : Wear respiratory protection

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : 0.29

Melting point : -47 °C

Freezing point : No data available

Boiling point : 155 °C

Flash point : 44 °C

Auto-ignition temperature : 420 °C

Decomposition temperature : No data available

Flammability (solid, gas) : Flammable

Flammable liquid and vapour

Vapour pressure : 4.5 hPa at 20 °C

Relative vapour density at 20 °C : 3.4

Relative density : No data available

Density : 0.947 g/cm³

Solubility : Water: 15 % in water @ 10C

Log Pow : 0.81

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidising properties : No data available

Explosive limits : 0.011 - 0.094 vol %

9.2. Other information

No additional information available

10. Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation: Harmful if inhaled.

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

12. Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Log Pow 0.81

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

13. Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to ...

Additional information : Handle empty containers with care because residual vapours are flammable

14. Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1915

UN-No. (IMDG) : 1915

UN-No.(IATA) : 1915

UN-No.(ADN) : 1915

UN-No. (RID) : 1915

14.2. UN proper shipping name

Proper Shipping Name (ADR) : CYCLOHEXANONE

Proper Shipping Name (IMDG) : CYCLOHEXANONE

Proper Shipping Name (IATA) : CYCLOHEXANONE

Proper Shipping Name (ADN) : CYCLOHEXANONE

Proper Shipping Name (RID) : CYCLOHEXANONE

Transport document description (ADR) : UN 1915 CYCLOHEXANONE, 3, III, (D/E)

Transport document description (IMDG) : UN 1915 CYCLOHEXANONE, 3, III (38°C c. c.)

Transport document description (IATA) : UN 1915 CYCLOHEXANONE, 3, III

Transport document description (ADN) : UN 1915 CYCLOHEXANONE, 3, III

Transport document description (RID) : UN 1915 CYCLOHEXANONE, 3, III

14.3. Transport hazard class(es)

ADR : Transport hazard class(es) (ADR) : 3

Danger labels (ADR) : 3

IMDG: Transport hazard class(es) (IMDG) : 3

Danger labels (IMDG) : 3

IATA : Transport hazard class(es) (IATA) : 3

Hazard labels (IATA) : 3

ADN':Transport hazard class(es) (ADN) : 3

Danger labels (ADN) : 3

RID: Transport hazard class(es) (RID) : 3

Danger labels (RID) : 3

14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1

Limited quantities (ADR) : 5L

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : MP19
 Portable tank and bulk container instructions (ADR) : T2
 Portable tank and bulk container special provisions (ADR) : TP1
 Tank code (ADR) : LGBF Vehicle for tank carriage : FL
 Transport category (ADR) : 3
 Special provisions for carriage – Packages (ADR) : V12
 Special provisions for carriage – Operation (ADR) : S2
 Hazard identification number (Kemler No.) : 30 Orange plates :
 Tunnel restriction code (ADR) : D/E EAC code : •3Y
 - Transport by sea
 Limited quantities (IMDG) : 5 L
 Excepted quantities (IMDG) : E1
 Packing instructions (IMDG) : P001, LP01
 IBC packing instructions (IMDG) : IBC03
 Tank instructions (IMDG) : T2
 Tank special provisions (IMDG) : TP1
 EmS-No. (Fire) : F-E
 EmS-No. (Spillage) : S-D
 Stowage category (IMDG) : A
 Flash point (IMDG) : 38°C to 44°C c.c.
 MFAG-No : 127
 - Air transport
 PCA Excepted quantities (IATA) : E1
 PCA Limited quantities (IATA) : Y344
 PCA limited quantity max net quantity (IATA) : 10L
 PCA packing instructions (IATA) : 355
 PCA max net quantity (IATA) : 60L
 CAO packing instructions (IATA) : 366
 CAO max net quantity (IATA) : 220L
 ERG code (IATA) : 3L
 - Inland waterway transport
 Classification code (ADN) : F1
 Limited quantities (ADN) : 5 L
 Excepted quantities (ADN) : E1
 Carriage permitted (ADN) : T
 Equipment required (ADN) : PP, EX, A
 Ventilation (ADN) : VE01
 Number of blue cones/lights (ADN) : 0
 - Rail transport
 Classification code (RID) : F1
 Limited quantities (RID) : 5L
 Excepted quantities (RID) : E1
 Packing instructions (RID) : P001, IBC03, LP01, R001
 Mixed packing provisions (RID) : MP19
 Portable tank and bulk container instructions (RID) : T2
 Portable tank and bulk container special provisions (RID) : TP1
 Tank codes for RID tanks (RID) : LGBF
 Transport category (RID) : 3
 Special provisions for carriage – Packages (RID) : W12
 Colis express (express parcels) (RID) : CE4
 Hazard identification number (RID) : 30
 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
 Not applicable.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
 15.1.1. EU-Regulations
 No REACH Annex XVII restrictions
 CYCLOHEXANONE AR is not on the REACH Candidate List
 CYCLOHEXANONE AR is not on the REACH Annex XIV List
 15.1.2. National regulations
 Germany
 AwSV/VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 2; WGK No 64)
 12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)
 Denmark
 Class for fire hazard : Class II-1
 Store unit : 5 liter
 Classification remarks : R10 ; Emergency management guidelines for the

storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

16. Other information

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative

Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Further information : None.

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