

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product name : 2-Heptanone
 CAS No. : 110-43-0

Manufacturer or supplier's details

Company : Heynova (Shanghai) New Material Technology CO., Ltd
 Address : Building 3, No. 690 Bibo Road, Pudong New Area, Shanghai, China
 Telephone : +86-178-2110-2608
 E-mail address : info@heynovachem.com

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance : liquid
Color : colorless

Flammable liquid and vapor. Harmful if swallowed. May be harmful if swallowed and enters airways. Causes skin and eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

GHS Classification

Flammable liquids : Category 3
 Acute toxicity (Oral) : Category 4
 Skin corrosion/irritation : Category 2
 Serious eye damage/eye irritation : Category 2B
 Specific target organ toxicity - single exposure : Category 3 (respiratory tract irritation, Narcotic effects)
 Aspiration hazard : Category 2

GHS label elements

Hazard pictograms :   

Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.
 H302 Harmful if swallowed.
 H305 May be harmful if swallowed and enters airways.
 H315 + H320 Causes skin and eye irritation.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.

Precautionary Statements : **Prevention:**
 P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ 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 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
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 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 Do NOT induce vomiting.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 + P364 Take off 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 + P233 Store in a well-ventilated place. Keep container tightly closed.
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.

Physical and chemical hazards

Flammable liquid and vapor.

Health hazards

Harmful if swallowed. Causes skin irritation. Causes eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May be harmful if swallowed and enters airways.

Environmental hazards

Not classified based on available information.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Components

| Chemical name | CAS RN | Concentration (% w/w) |
|---------------|----------|-----------------------|
| 2-Heptanone | 110-43-0 | 98 |

4. FIRST AID MEASURES

If inhaled : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

In case of skin contact : Take off all contaminated clothing immediately. If on skin, rinse well with water.

| | | |
|---|---|---|
| | | If skin irritation occurs: Get medical advice/ attention. |
| In case of eye contact | : | Rinse with plenty of water. If easy to do, remove contact lens, if worn. If eye irritation persists: Get medical advice/ attention. |
| If swallowed | : | Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. Do NOT induce vomiting. |
| Most important symptoms and effects, both acute and delayed | : | None known. |

5. FIRE-FIGHTING MEASURES

| | | |
|--|---|--|
| Suitable extinguishing media | : | Dry powder, Foam, Water spray, Carbon dioxide (CO ₂) |
| Specific hazards during fire fighting | : | No information available. |
| Specific extinguishing methods | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Remove undamaged containers from fire area if it is safe to do so. |
| Special protective equipment for fire-fighters | : | Use personal protective equipment. |

6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|--|
| Personal precautions, protective equipment and emergency procedures | : | Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc. |
| Environmental precautions | : | Prevent product from entering drains. |
| Methods and materials for containment and cleaning up | : | Collect as much of the spill as possible with a suitable absorbent material. |

7. HANDLING AND STORAGE

Handling

| | | |
|-------------------------|---|--|
| Technical measures | : | Prevent generation of vapor or mist. Take precautionary measures against static discharge. Use explosion-proof equipment. |
| Local/Total ventilation | : | Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation. |
| Advice on safe handling | : | Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not subject to grinding, shock or friction. Wash hands and face thoroughly after handling. |
| Avoidance of contact | : | Oxidizing agents, Reducing agents, Strong acids, Bases, Amines |

Storage

Conditions for safe storage : Keep container tightly closed.
 Store in a cool and shaded area.
 Keep in a well-ventilated place.
 Use explosion-proof equipment.
 Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Ingredients with workplace control parameters

| Components | CAS RN | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|-------------|----------|----------------------------------|---|-------|
| 2-Heptanone | 110-43-0 | TWA | 50 ppm | ACGIH |

Engineering measures : Install a closed system or local exhaust.
 Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection : Gas mask
 Self-contained breathing apparatus

Eye/face protection : Safety glasses
 Safety goggles
 Face-shield

Skin and body protection : Impervious protective clothing

Hand protection : Impervious gloves

*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : colorless

Odor : No data available

Odor Threshold : 0.35 ppm

pH : No data available

Melting point/freezing point : -36 °C

Boiling point/boiling range : 151 °C

Flash point : 42 °C

Evaporation rate : No data available

Flammability : No data available

Upper explosion limit / Upper flammability limit : 5.5 %(V)

Lower explosion limit / Lower flammability limit : 1 %(V)

Vapor pressure : 0.2 kPa (25 °C)

| | | |
|--|---|--|
| Relative vapor density | : | 3.9 |
| Relative density | : | 0.82 |
| Solubility(ies) | | |
| Water solubility | : | 4,300 mg/l very slightly soluble (25 °C) |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | 1.98 |
| Autoignition temperature | : | 393 °C |
| Decomposition temperature | : | No data available |
| Viscosity | | |
| Viscosity, dynamic | : | No data available |
| Viscosity, kinematic | : | No data available |
| Molecular weight | : | 114.19 g/mol |

10. STABILITY AND REACTIVITY

| | | |
|------------------------------------|---|--|
| Reactivity | : | No data available |
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reactions | : | None under normal processing. |
| Conditions to avoid | : | Electrical spark Open flame Electrostatic discharge |
| Incompatible materials | : | Oxidizing agents, Reducing agents, Strong acids, Bases, Amines |
| Hazardous decomposition products | : | Carbon monoxide, Carbon dioxide (CO ₂) |

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

| | | |
|---------------------|---|---|
| Acute oral toxicity | : | Assessment: The component/mixture is moderately toxic after single ingestion. |
|---------------------|---|---|

Components:

2-Heptanone:

| | | |
|---------------------------|---|---|
| Acute oral toxicity | : | LD50 (Rat): 1,600 mg/kg Assessment: The component/mixture is moderately toxic after single ingestion. |
| Acute inhalation toxicity | : | LCLo (Rat): 4000 ppm Exposure time: 4 h Test atmosphere: gas Assessment: The substance or mixture has no acute inhalation toxicity |

Acute dermal toxicity : LD50 (Rabbit): 10,332 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Acute toxicity (other routes of administration) : LD50 (Rat): 800 mg/kg
Application Route: Intraperitoneal injection

Skin corrosion/irritation**Product:**

Result : Skin irritation

Components:**2-Heptanone:**

Result : Skin irritation

Serious eye damage/eye irritation**Product:**

Result : Mild eye irritation

Components:**2-Heptanone:**

Result : Mild eye irritation

Respiratory or skin sensitization : No information available.

Germ cell mutagenicity : No information available.

Carcinogenicity : No information available.

Reproductive toxicity : No information available.

STOT-single exposure**Product:**

Assessment : May cause respiratory irritation.
May cause drowsiness or dizziness.

Components:**2-Heptanone:**

Assessment : May cause respiratory irritation.
May cause drowsiness or dizziness.

STOT-repeated exposure : No information available.

Repeated dose toxicity : No information available.

Aspiration toxicity**Product:**

May be harmful if swallowed and enters airways.

Components:**2-Heptanone:**

May be harmful if swallowed and enters airways.

RTECS No. : MJ5075000 (2-Heptanone)

12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****2-Heptanone:**Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 131 mg/l
Exposure time: 96 h**Persistence and degradability**

No data available

Bioaccumulative potential**Components:****2-Heptanone:**Partition coefficient: n- : 1.98
octanol/water**Mobility in soil****Components:****2-Heptanone:**Distribution among environmen- : Koc: 280
tal compartments**Other adverse effects**

No data available

13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Disposal in accordance with local and national regulations.
Take precautions against ignition or explode.
Entrust disposal to a licensed waste disposal company.

Contaminated packaging : Disposal in accordance with local and national regulations.
Before disposal of used container, remove contents completely.

14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**UN/ID No. : UN 1110
Proper shipping name : n-Amyl methyl ketone
Class : 3
Packing group : III**IMDG-Code**UN number : UN 1110
Proper shipping name : n-AMYL METHYL KETONE
Class : 3
Packing group : III
EmS Code : F-E, S-D**Domestic regulation**

GB 6944/12268

UN number : UN 1110
Proper shipping name : N-AMYL METHYL KETONE
Class : 3
Packing group : III

15. REGULATORY INFORMATION**Regulations on Safety Management of Hazardous Chemicals**

Catalogue of Hazardous Chemicals : Listed

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

CH BAGREG : On the inventory, or in compliance with the inventory
TSCA : All substances listed as active on the TSCA inventory
AICS : On the inventory, or in compliance with the inventory
DSL : All components of this product are on the Canadian DSL

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

16. OTHER INFORMATION

Revision Date : 2024/10/05
Date format : yyyy/mm/dd

Disclaimer

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.