

SAFETY DATA SHEET

| | |
|---|---|
| Product identifier | Octane |
| Other means of Identification | n-Octane |
| Other Identification | EC Number: 203-892-1 |
| Recommended Use | Solvent |
| Restrictions on use | None known. |
| Manufacturer/Supplier Identifier | Caledon Laboratories Ltd, 40 Armstrong Avenue, Georgetown, Ontario, L7G-4R9, (905) 877-0101, www.caledonlabs.com |
| Emergency Phone No. | CANUTEC, (613) 996-6666 |

SECTION 2. Hazards identification

GHS Classification

Flammable liquid, Category 2, H225

Skin irritation, Category 2, H315

Specific target organ systemic toxicity - single exposure, Category 3, Central nervous system, H336

Aspiration hazard, Category 1, H304

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms



Signal Word

Danger

Hazard Statements

H225 Highly flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

Precautionary Statements

- 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.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P331 Do NOT induce vomiting.
- P332 + P313 If skin irritation occurs: Get medical advice/ attention.
- P362 Take off contaminated clothing and wash before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
- 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.
- P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. Composition/information on ingredients

| | |
|------------|---|
| Formula | CH ₃ (CH ₂) ₆ CH ₃ |
| Molar mass | 114.23 g/mol |

Hazardous ingredients

Chemical Name (Concentration)

CAS-No.

n-octane (>= 90 % - <= 100 %)

111-65-9

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air. Call in physician.

Skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Eye contact

After eye contact: rinse out with plenty of water.

Ingestion

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Call a physician immediately. Pulmonary failure possible after aspiration of vomit.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

irritant effects, respiratory arrest, Drowsiness, Dizziness, Unconsciousness, agitation, Nausea, Vomiting, Headache, drowsiness

Drying-out effect resulting in rough and chapped skin.

It generally applies for aliphatic hydrocarbons with 6 - 18 carbon atoms that they may cause pneumonia, in some cases also pulmonary oedema, upon direct inhalation, i.e. in conditions that can occur only in very special circumstances (nebulizations, spraying, inhalation of aerosols and similar). After absorption of very large quantities: narcosis.

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂), Foam, Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air at ambient temperatures.

Pay attention to flashback.

Development of hazardous combustion gases or vapors possible in the event of fire.

Advice for firefighters

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

Environmental precautions

Do not empty into drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

SECTION 7. Handling and storage

Precautions for safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapors/aerosols.

Observe label precautions.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Keep container tightly closed in a dry and well-ventilated place.

Store at +15°C to +25°C (+59°F to +77°F).

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

| Basis | Value | Threshold limits | Remarks |
|--------------------------|-----------------------------------|------------------------------------|---------|
| <i>n-octane 111-65-9</i> | | | |
| CAD AB OEL | Time Weighted Average (TWA): | 300 ppm 1,400 mg/m ³ | |
| CAD MB OEL | Time Weighted Average (TWA): | 300 ppm | |
| CAD ON OEL | Time Weighted Average (TWA): | 300 ppm | |
| OEL (QUE) | Time Weighted Average (TWA): | 300 ppm 1,400 mg/m ³ | |
| | Short Term Exposure Limit (STEL): | 375 ppm 1,750 mg/m ³ | |
| CAD BC OEL | Time Weighted Average (TWA): | 300 ppm | |

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

Eye/face protection

Safety glasses

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapors/aerosols are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

| | |
|-----------------------------|---|
| Physical state | liquid |
| Color | colorless |
| Odor | characteristic |
| Odor Threshold | No information available. |
| pH | No information available. |
| Melting point | -57 °C |
| Boiling point/boiling range | 257 - 259 °F (125 - 126 °C) at 1,013 hPa |
| Flash point | 55 °F (13 °C) Method: c.c. |
| Evaporation rate | No information available. |
| Flammability (solid, gas) | No information available. |
| Lower explosion limit | 0.8 %(V) |
| Upper explosion limit | 6.5 %(V) |

| | |
|--|--|
| Vapor pressure | 14 hPa at 68 °F (20 °C) |
| Relative vapor density | No information available. |
| Density | 0.70 g/cm ³ at 68 °F (20 °C) |
| Relative density | No information available. |
| Water solubility | 0.0007 g/l at 68 °F (20 °C) |
| Partition coefficient: n-octanol/water | log Pow: 5.18 (experimental) Potential bioaccumulation |
| Autoignition temperature | No information available. |
| Decomposition temperature | No information available. |
| Viscosity, dynamic | No information available. |
| Explosive properties | Not classified as explosive. |
| Oxidizing properties | none |
| Ignition temperature | 410 °F (210 °C) |

SECTION 10. Stability and reactivity

Reactivity

Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

Conditions to avoid

Warming.

Incompatible materials

various plastics

Hazardous decomposition products

no information available

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Inhalation, Eye contact, Skin contact

Acute inhalation toxicity

LC50 Rat: 118 mg/l; 4 h (RTECS)

Symptoms: drowsiness, Drowsiness

Skin irritation

Drying-out effect resulting in rough and chapped skin.

Causes skin irritation.

Eye irritation

Possible damages: slight irritation

Specific target organ systemic toxicity - single exposure

May cause drowsiness or dizziness.

Target Organs: Central nervous system

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

Carcinogenicity

| | |
|-------|--|
| IARC | No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| OSHA | No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |
| NTP | No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| ACGIH | No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. |

Further information

Systemic effects:

After uptake of large quantities:

Headache, Dizziness, Nausea, Vomiting, agitation, drowsiness, Drowsiness, Unconsciousness, respiratory arrest

It generally applies for aliphatic hydrocarbons with 6 - 18 carbon atoms that they may cause pneumonia, in some cases also pulmonary oedema, upon direct inhalation, i.e. in conditions that can occur only in very special circumstances (nebulizations, spraying, inhalation of aerosols and similar). After absorption of very large quantities: narcosis.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

Ecotoxicity

Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): 0.38 mg/l; 48 h (ECOTOX Database)

Persistence and degradability

Theoretical oxygen demand (ThOD)

3,500 mg/g

(Lit.)

Bioaccumulative potential

Partition coefficient: n-octanol/water

log Pow: 5.18

(experimental)

Potential bioaccumulation

Mobility in soil

No information available.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

| | |
|---------------------------|---------|
| UN number | UN 1262 |
| Proper shipping name | OCTANES |
| Class | 3 |
| Packing group | II |
| Environmentally hazardous | -- |

Air transport (IATA)

| | |
|---------------------------|---------|
| UN number | UN 1262 |
| Proper shipping name | OCTANES |
| Class | 3 |
| Packing group | II |
| Environmentally hazardous | -- |

| | |
|------------------------------|---------|
| Special precautions for user | no |
| Sea transport (IMDG) | |
| UN number | UN 1262 |
| Proper shipping name | OCTANES |
| Class | 3 |
| Packing group | II |
| Environmentally hazardous | -- |
| Special precautions for user | yes |
| EmS | F-E S-E |

SECTION 15. Regulatory information

United States of America

Canada

WHMIS Classification

B2 Flammable Liquid
D2B Toxic Material Causing Other Toxic Effects
Flammable Liquid, Skin irritant

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

SECTION 16. Other information

Date de Publication: Mar 24, 2017
Date de la Révision: Données non disponibles.
Version n°: 1.0
Autres Informations: Données non disponibles.

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