

# SAFETY DATA SHEET



Revision date: 26-Jul-2022

Revision Number 1

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### Product identifier

**Product Name** ISOPAR E  
**Product Code(s)** 000000054273

### Other means of identification

**UN number** 3295  
**CAS No.** 64741-66-8

### Recommended use of the chemical and restrictions on use

**Recommended use** Mining chemical.  
**Uses advised against** No information available.

### Supplier

Ixom Operations Pty Ltd  
ABN: 51 600 546 512  
Level 8, 1 Nicholson Street  
Melbourne 3000  
Australia

Telephone Number: +61 3 9906 3000

### Emergency telephone number

Emergency telephone number **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

### GHS Classification

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

|   |             |
|---|-------------|
| <b>Flammable liquids</b>                                  | Category 2  |
| <b>Aspiration hazard</b>                                  | Category 1  |
| <b>Skin corrosion/irritation</b>                          | Category 2  |
| <b>Serious eye damage/eye irritation</b>                  | Category 2  |
| <b>Germ cell mutagenicity</b>                             | Category 1B |
| <b>Carcinogenicity</b>                                    | Category 1A |
| <b>Specific target organ toxicity (single exposure)</b>   | Category 3  |
| <b>Specific target organ toxicity (repeated exposure)</b> | Category 1  |

|                          |            |
|--------------------------|------------|
| Acute aquatic toxicity   | Category 1 |
| Chronic aquatic toxicity | Category 1 |

**SIGNAL WORD**

Danger

**Label elements**

Flame  
Health hazard  
Exclamation mark  
Environment

**Hazard statements**

H225 - Highly flammable liquid and vapor  
H304 - May be fatal if swallowed and enters airways  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H336 - May cause drowsiness or dizziness  
H340 - May cause genetic defects  
H350 - May cause cancer  
H372 - Causes damage to organs through prolonged or repeated exposure

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations:

H410 - Very toxic to aquatic life with long lasting effects

**Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical, ventilating, lighting equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge  
Do not breathe the mist, vapours, spray.  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Use only outdoors or in a well-ventilated area  
Wear protective gloves / protective clothing / eye protection / face protection  
Use personal protective equipment as required  
In case of inadequate ventilation wear respiratory protection  
Avoid release to the environment

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention  
Get medical advice/attention if you feel unwell  
Specific treatment (see First aid on this SDS)  
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  
IF ON SKIN: Wash with plenty of soap and water  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash before reuse  
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor if you feel unwell

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish.

Collect spillage

#### Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Store locked up

#### Precautionary Statements - Disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

#### Other hazards which do not result in classification

Poisons Schedule (SUSMP) 5

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name                       | CAS No.    | Weight-% |
|-------------------------------------|------------|----------|
| Naphtha (petroleum), light alkylate | 64741-66-8 | 100      |
| Octane                              | 111-65-9   | <70      |
| Nonane                              | 111-84-2   | <40      |

### 4. FIRST AID MEASURES

#### Description of first aid measures

|   |  |
|---|--|
| <b>General advice</b>                     | For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor. Show this safety data sheet to the doctor in attendance.   |
| <b>Inhalation</b>                         | Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.  |
| <b>Eye contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.  |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.  |
| <b>Ingestion</b>                          | Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.  |
| <b>Self-protection of the first aider</b> | Avoid contact with skin, eyes, and clothing. Do not breathe vapor or mist. Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. |

#### Most important symptoms and effects, both acute and delayed

|                 |   |
|-----------------|---|
| <b>Symptoms</b> | Irritation. May cause redness and tearing of the eyes. Erythema (skin redness). Drowsiness. Dizziness. Aspiration risk: may cause lung damage if swallowed. |
|-----------------|---|

#### Indication of any immediate medical attention and special treatment needed

|                           |   |
|---------------------------|---|
| <b>Note to physicians</b> | Treat symptomatically. Aspiration may cause pulmonary edema and pneumonitis. Delayed pulmonary edema may occur. Probable mucosal damage may contraindicate the use of gastric lavage. |
|---------------------------|---|

### 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media**

**Suitable Extinguishing Media** Dry chemical. Foam.

**Unsuitable extinguishing media** Do not use straight streams.

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** Highly flammable. Risk of ignition. Keep product and empty container away from heat and sources of ignition. Flash back possible over considerable distance. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Environmentally hazardous.

**Hazardous combustion products** Carbon oxides.

**Special protective actions for fire-fighters**

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**Hazchem code** 3YE

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes, and clothing. Do not breathe vapor or mist. Ensure adequate ventilation. Evacuate personnel to safe areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. See section 8 for more information.

**Other information** Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Refer to protective measures listed in Sections 7 and 8.

**Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

**Methods for cleaning up** Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Take precautionary measures against static discharges. Use non-sparking tools.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on safe handling** Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat,

hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Do not eat, drink or smoke when using this product.

**General hygiene considerations** Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

#### **Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Store away from foodstuffs. Keep container closed when not in use.

This material is a Scheduled Poison and must be stored, maintained and used in accordance with the relevant regulations.

**Incompatible materials** Oxidizing agents. Mineral acids. Halogenated compounds. Natural rubber. Butyl rubber. Polystyrene. Ethylene propylene diene monomer (EPDM) rubber.

**Poisons Schedule (SUSMP)** 5

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control parameters**

**Exposure Limits** No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Octane: 8hr TWA = 1400 mg/m<sup>3</sup> (300 ppm), 15 min STEL = 1750 mg/m<sup>3</sup> (375 ppm)

Nonane: 8hr TWA = 1050 mg/m<sup>3</sup> (200 ppm)

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

### **Appropriate engineering controls**

**Engineering controls** Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering

controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

#### Individual protection measures, such as personal protective equipment

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.



#### Eye/face protection

Goggles.

#### Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

#### Hand protection

Impervious gloves.

#### Respiratory protection

If determined by a risk assessment an inhalation risk exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

#### Environmental exposure controls

Prevent product from entering drains.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

|                |                           |
|----------------|---------------------------|
| Physical state | Liquid                    |
| Appearance     | Clear                     |
| Color          | Colourless                |
| Odor           | No information available. |
| Odor threshold | No information available. |

| <u>Property</u>                        | <u>Values</u>     | <u>Remarks • Method</u> |
|--|-------------------|-------------------------|
| pH                                     | No data available | None known              |
| pH (as aqueous solution)               | No data available | None known              |
| Melting point / freezing point         | No data available |                         |
| Boiling point / boiling range          | 115-140°C         |                         |
| Flash point                            | 6°C               | None known              |
| Evaporation rate                       | No data available | None known              |
| Flammability (solid, gas)              | No data available | None known              |
| Flammability Limit in Air              |                   | None known              |
| Upper flammability or explosive limits | 6.0%              |                         |
| Lower flammability or explosive limits | 0.9%              |                         |
| Vapor pressure                         | 2 kPa @20°C       |                         |
| Vapor density                          | 4.1 (air=1)       |                         |
| Relative density                       | 0.724 @15°C       |                         |
| Water solubility                       | Negligible        |                         |
| Solubility(ies)                        | No data available | None known              |
| Partition coefficient                  | No data available | None known              |
| Autoignition temperature               | 380°C             |                         |

|                           |                   |            |
|---------------------------|-------------------|------------|
| Decomposition temperature | No data available | None known |
| Kinematic viscosity       | 0.7 cSt @40°C     | None known |
| Dynamic viscosity         | No data available | None known |

Other information**10. STABILITY AND REACTIVITY**Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid Heat, flames and sparks. Exposure to air. Exposure to light.

Incompatible materials

Incompatible materials Oxidizing agents. Mineral acids. Halogenated compounds. Natural rubber. Butyl rubber. Polystyrene. Ethylene propylene diene monomer (EPDM) rubber.

Hazardous decomposition products

Hazardous decomposition products Carbon oxides.

**11. TOXICOLOGICAL INFORMATION**Acute toxicityInformation on likely routes of exposure

|                     |   |
|---------------------|---|
| Product Information | No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are: |
| Inhalation          | May cause irritation. May cause drowsiness or dizziness. Aspiration into lungs can produce severe lung damage. Vapors can have a narcotic effect. High concentrations lead to unconsciousness - life threatening.             |
| Eye contact         | Causes serious eye irritation.  |
| Skin contact        | Irritating to skin. Repeated exposure may cause skin dryness or cracking.   |
| Ingestion           | Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause drowsiness or dizziness. Aspiration may cause pulmonary edema and pneumonitis.   |

**Symptoms** Irritation. May cause redness and tearing of the eyes. Erythema (skin redness).  
Drowsiness. Dizziness. Aspiration risk: may cause lung damage if swallowed.

**Numerical measures of toxicity - Product Information**

Refer to component information below.

**Component Information**

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50        |
|---------------|-----------|-------------|------------------------|
| Nonane        | -         | -           | = 3200 ppm ( Rat ) 4 h |

See section 16 for terms and abbreviations

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** May cause genetic defects.

**Carcinogenicity** May cause cancer.

**Reproductive toxicity** No information available.

**STOT - single exposure** May cause drowsiness or dizziness.

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard** May be fatal if swallowed and enters airways.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Ecotoxicity** Keep out of waterways. Very toxic to aquatic life with long lasting effects.

**Persistence and degradability**

**Persistence and degradability** No information available.

**Bioaccumulative potential**

**Bioaccumulation** No information available.

**Mobility**

**Mobility in soil** No information available.

**Other adverse effects**

## 13. DISPOSAL CONSIDERATIONS



**Waste treatment methods****Waste from residues/unused products**

Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging**

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. TRANSPORT INFORMATION****ADG**

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

|                             |   |
|-----------------------------|---|
| <b>UN number</b>            | 3295  |
| <b>Proper shipping name</b> | HYDROCARBONS, LIQUID, N.O.S. (CONTAINS OCTANE AND NONANE) |
| <b>Hazard class</b>         | 3   |
| <b>Packing group</b>        | II  |
| <b>Hazchem code</b>         | 3YE   |

**IATA**

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

|                                   |   |
|-----------------------------------|---|
| <b>UN number</b>                  | 3295  |
| <b>UN proper shipping name</b>    | HYDROCARBONS, LIQUID, N.O.S. (CONTAINS OCTANE AND NONANE) |
| <b>Transport hazard class(es)</b> | 3   |
| <b>Packing group</b>              | II  |

**IMDG**

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

|                                   |   |
|-----------------------------------|---|
| <b>UN number</b>                  | 3295  |
| <b>UN proper shipping name</b>    | HYDROCARBONS, LIQUID, N.O.S. (CONTAINS OCTANE AND NONANE) |
| <b>Transport hazard class(es)</b> | 3   |
| <b>Packing group</b>              | II  |
| <b>Marine pollutant</b>           | Yes   |

**15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

See section 8 for national exposure control parameters

**Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)**

Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

**Poisons Schedule (SUSMP)** 5

**Major hazard (accident/incident planning) regulation**

Verify that license requirements are met

Hazardous chemical

Liquids that meet the criteria for Class 3 Packing Group II or III

Threshold quantity (T)

50 000

**National pollutant inventory**

Subject to reporting requirement

| Chemical name     | National pollutant inventory  |
|-------------------|---|
| Nonane - 111-84-2 | 20 MW Threshold category 2b total<br>60000 MWH Threshold category 2b total<br>1 tonne/h Threshold category 2a total<br>25 tonne/yr Threshold category 1a total<br>400 tonne/yr Threshold category 2a total<br>2000 tonne/yr Threshold category 2b total |

**International Inventories**

**AIRC**

All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.

**Legend:**

**AIRC - Australian Inventory of Industrial Chemicals**

**International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

## 16. OTHER INFORMATION

Supplier Safety Data Sheet 04/ 2021

Isopar is a trademark.

**Reason(s) For Issue:** First Issue Primary SDS

**Issuing Date:** 26-Jul-2022

This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).

**Revision Note:**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |
| C       | Carcinogen                  |      |                                  |

**Key literature references and sources for data used to compile the SDS**

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGl(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australian Industrial Chemicals Introduction Scheme (AICIS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Disclaimer**

**This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.**

**If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.**

**Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.**

**End of Safety Data Sheet**