

SDS 3370 Naphthalene

Date of Issue/re-issue: 25/03/2019

Expiry: 01/04/2024

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP Limited**
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Product	Naphthalene				Code	3370
CAS#	HSNO#	UN #	DG Class/es	Packing group #	Tracking?	Handlers Certificate?
91-20-3	HSR002692	1334	4.1	III	No	No

Recommended use: Laboratory Investigations

2. Hazards identification

2.1 GHS Classification

- Flammable Solids (Category A)
- Acute toxicity, Oral (Category D)
- Acute toxicity, Inhalation (Category B)
- Skin irritation (Category A)
- Eye irritation (Category A)
- Carcinogenicity (Category B)
- Aquatic toxicity (Acute or Chronic) (Category A)

2.2 GHS Label elements, including precautionary statements



Pictogram

Signal word **Danger**

Hazard statement(s)

- H228 Flammable solid.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H320 Causes eye irritation.
- H330 Fatal if inhaled.
- H351 Suspected of causing cancer.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P260 Do not breathe dust/fume/gas/mist/vapours/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.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P284 Wear respiratory protection.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P330 Rinse mouth.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: 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.

P391 Collect spillage.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

2.3 Other hazards

None

3. Composition/information on ingredients

Substance/Mixture: Substance

3.1 Substances

Hazardous components

Component	Classification	Concentration
Naphthalene	4.1.1 A; 6.1 D; 6.1 B; 6.3 A; 6.4 A; 6.7 B; 9.1 A; H228, H302, H330, H315, H320, H351, H410 M-Factor - Aquatic Acute: 10	<= 100%

4. First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Absorption into the body leads to the formation of methaemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. Naphthalene is retinotoxic and systemic absorption of its vapours above 15ppm may result in cataracts, optic

neuritis, corneal injury and eye irritation. Ingestion may provoke the following symptoms: haemolytic anaemia, haemoglobinuria, nausea, headache, vomiting, gastrointestinal disturbance, convulsions, anaemia. Kidney injury may occur. Seizures. Coma.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits Table

Component	CAS No	Value	Control parameters	Basis
Naphthalene	91-20-3	WES-TWA	10 ppm 52 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
		WES-STEL	15 ppm 79 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Body Protection

Complete suit protecting against chemicals. Flame-retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance

Form: flakes, granules

Colour: white

b) Odour

aromatic

c) Melting point/freezing point

Melting point/range: 80 - 82 °C - lit.

d) Initial boiling point and boiling range

218 °C - lit.

e) Flash point

80.0 °C - closed cup

f) Upper/lower flammability or explosive limits

Upper explosion limit: 5.9 %(V)

Lower explosion limit: 0.9 %(V)

g) Vapour pressure

1.3 hPa at 53.0 °C 0.04 hPa at 25.0 °C

h) Relative density

1.085 g/cm³ at 24.7 °C

i) Water solubility

0.0308 g/l at 25 °C - slightly soluble

j) Partition coefficient: n-octanol/water

log Pow: 3.4 at 25 °C

k) Auto-ignition temperature

526.0 °C

l) Viscosity

1.05 mm²/s at 81.5 °C -

10. Stability and reactivity

10.1 Conditions to avoid

Heat, flames and sparks.

10.2 Incompatible materials

Strong oxidizing agents

10.3 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions

Carbon oxides

Other decomposition products

No data available

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 490.0 mg/kg

LC50 Inhalation - Rat - male and female - 4 h - > 0.4 mg/l LD50 Dermal - Rabbit - 20,000 mg/kg Skin

corrosion/irritation Skin - Rabbit - No skin irritation - 24 h Serious eye damage/eye irritation Eyes -

Rabbit - Mild eye irritation Respiratory or skin sensitisation Maximisation Test - Guinea pig - Does

not cause skin sensitisation. - OECD Test Guideline 406 Germ cell mutagenicity Genotoxicity in vitro -

Ames test - *S. typhimurium* - with and without metabolic activation - negative Genotoxicity in vivo -

Rat - male - Oral - negative Carcinogenicity Carcinogenicity - Rat - male and female - inhalation

(vapour) Tumorigenic:Tumors at site or application. This product is or contains a component that has

been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies IARC: 2B - Group 2B: Possibly carcinogenic to

humans (Naphthalene) Reproductive toxicity No data available Specific target organ toxicity - single

exposure No data available Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available Potential health effects Inhalation May be harmful if inhaled.

May cause respiratory tract irritation. Ingestion Harmful if swallowed. Skin May be harmful if

absorbed through skin. May cause skin irritation. Eyes May cause eye irritation. Signs and Symptoms

of Exposure Absorption into the body leads to the formation of methemoglobin which in sufficient

concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer., Naphthalene is

retinotoxic and systemic absorption of its vapors above 15ppm, may result in: cataracts, optic

neuritis, corneal injury, Eye irritation, Ingestion may provoke the following symptoms: hemolytic

anemia, hemoglobinuria, Nausea, Headache, Vomiting, Gastrointestinal disturbance, Convulsions,

anemia, Kidney injury may occur., Seizures., Coma. Additional Information Repeated dose toxicity -

Rat - male and female - Oral - No observed adverse effect level - 100 mg/kg - Lowest observed

adverse effect level - 400 mg/kg

RTECS: QJ0525000

12. Ecological information

12.1 Toxicity

Toxicity to fish

Flow-through test LC50 - *Pimephales promelas* (fathead minnow) - 7.9 mg/l - 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates static test

EC50 - *Daphnia magna* (Water flea) - 2.16 mg/l - 48 h

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d Result: 2 % - Not readily biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation

Fish - Bioconcentration factor (BCF): 427 - 1,158

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

13. Disposal considerations

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1334	1334	1334
14.2	UN Proper Shipping name	NAPHTHALENE, CRUDE	NAPHTHALENE, CRUDE	Naphthalene, crude
14.3	Transport Hazard Class	4.1	4.1	4.1
14.4	Packaging group	III	III	III
14.5	Environmental Hazards	Yes	Yes	No
14.6	Special precautions for user	No data available		

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulatory information

HSNO Group Standard Approval: HSR002692 - Laboratory Chemicals and Reagent Kits (Class 4)

Group Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their

particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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