








Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Protective Clothing
 	CLASS B-4: Flammable solid. Class D-2B: Material causing other toxic effects (TOXIC).	  

Section 1. Product and Company Identification

Product Name / Trade name	Naphthalene	Associated Product's Item Code	NAPHTHALENE
Synonym	Refined naphthalene	CAS #	91-20-3
Chemical Family	Aromatic hydrocarbon.	DSL	CEPA DSL: Naphthalene
Chemical Formula	C ₁₀ H ₈	Validation Date	5/18/2001.
Manufacturer	Recochem Inc. 850-Montée de Liesse Montreal, Quebec 514-341-3550	Print Date	5/18/2001.
Material Uses	Consumer products: Moth preventative.	In Case of Emergency	Recochem Inc. Communications and Regulatory Affairs Department (905) 791-1788

Section 2. Hazardous Ingredients

Name	CAS #	% by Weight	Exposure Limits	
			Canadian Values (ACGIH)	U.S. Values (OSHA)
1) Naphthalene	91-20-3	100	TWA: 10 ppm from ACGIH (Canada, 1999). Period: 8 hour(s). TWA: 52 mg/m ³ from ACGIH (Canada, 1999). Period: 8 hour(s). STEL: 15 ppm from ACGIH (Canada, 1999). Period: 15 minute(s). STEL: 79 mg/m ³ from ACGIH (Canada, 1999). Period: 15 minute(s).	1) Naphthalene TWA: 10 ppm from OSHA (United States, 1999). Period: 8 hour(s). TWA: 50 mg/m ³ from OSHA (United States, 1999). Period: 8 hour(s).

Section 3. Emergency Overview

Hazard Overview	WARNING: FLAMMABLE SOLID, skin sensitizer. Harmful if swallowed. Keep out of reach of children. Keep in a cool, well-ventilated place. Avoid contact with eyes, skin and clothing. DO NOT ingest. Avoid breathing dust. Wash thoroughly after handling.
Potential Acute Health Effects	Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. May cause skin sensitization.
Note to Physician	Not available.

Section 4. First Aid Measures

Eye Contact	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. If irritation persists, seek medical attention.
Skin Contact	After contact with skin, wash immediately with plenty of water. If irritation persists, seek medical attention.
Inhalation	Allow the victim to rest in a well ventilated area. Seek medical attention.
Ingestion	DO NOT induce vomiting. Have conscious person drink several glasses of water or milk. SEEK IMMEDIATE MEDICAL ATTENTION.

Section 5. Fire Fighting Measures

Products of Combustion	These products are carbon oxides (CO, CO ₂).
Fire Fighting Media and Instructions	Flammable solid. SMALL FIRE: Use DRY chemicals, CO ₂ , water spray or foam. LARGE FIRE: Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Fire Hazards	Yields flammable vapors on heating above melting point.
Explosion Hazards	Vapour forms explosive mixture with air. Material in powder form, capable of creating a dust explosion.

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Section 6. Accidental Release Measures

Small Spill and Leak	Use appropriate tools to put the spilled material in a convenient waste disposal container.
Large Spill and Leak	Flammable product. Use water spray curtain to divert vapor drift. Eliminate all sources of ignition. Use appropriate equipment to put the spilled material in a waste disposal. Dispose of in accordance with regional regulations.

Section 7. Handling and Storage

Handling	Keep away from heat, sparks and flame. To avoid fire, minimize ignition sources. DO NOT ingest. Avoid breathing dust. After handling, always wash hands thoroughly with soap and water.
Storage	Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Do not store above 38°C (100.4°F).

Section 8. Exposure Controls, Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	
Eyes	Safety glasses.
Body	No special protective clothing is required.
Respiratory	Wear appropriate respirator when ventilation is inadequate.
Hands	Gloves (impervious).

Section 9. Physical and Chemical Properties

Physical State and Appearance	Crystalline solid. (Flakes, chips and balls.)	Odor	Characteristic.
Molecular Weight	128.19 g/mole	Taste	Not available.
pH (1% Soln/Water)	Not applicable.	Color	White.
Boiling/Condensation Point	218°C (424.4°F)	Volatility	Not available.
Melting/Freezing Point	80.2°C (176.4°F)	Evaporation Rate	<1 compared to Butyl acetate.
Specific Gravity	1.162 (Water = 1)	Odor Threshold	>0.3 ppm
Vapor Pressure	Not applicable.	Viscosity	Not available.
Vapor Density	4.42 (Air = 1)	Solubility	Insoluble in water.
VOC Content	Not available.	Other Properties	Not available.

The Product is:	Combustible.
Autoignition Temperature	526°C (978.8°F)
Flash Points	CLOSED CUP: 79°C (174.2°F).
Flammable Limits	LOWER: 0.9% UPPER: 5.9%
Fire Hazards in Presence of Various Substances	Combustible in presence of open flames and sparks. Material in powder form, capable of creating a dust explosion.

Section 10. Stability and Reactivity

Stability	The product is stable.
Conditions of Instability	No additional remark.
Incompatibility with Various Substances	Reactive with oxidizing agents, acids.



Section 11. Toxicological Information

Routes of Entry Inhalation, Ingestion.

Toxicity to Animals Acute oral toxicity (LD50): >633 mg/kg [Mouse].

Acute Effects on Humans

Eyes Contact may cause eye irritation.

Skin Prolonged contact can cause skin irritation.

Inhalation Inhalation is minimal since vapours are unlikely due to physical properties. Practically non-toxic by inhalation. Inhalation may cause irritation to nose and throat.

Ingestion Hazardous in case of ingestion.

Chronic Effects on Humans Slightly hazardous in case of skin contact (irritant), of eye contact (irritant).
CARCINOGENIC EFFECTS: Classified None by NIOSH. A4 (Not classifiable for human or animal.) by ACGIH. NTP has classified Naphthalene as a carcinogen to rats.
MUTAGENIC EFFECTS: Non-mutagenic for bacteria and/or yeast.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
 The substance may be toxic to blood, kidneys, liver, eyes, hemolytic anemia, skin irritation.
 Repeated or prolonged exposure to the substance can produce target organs damage.

Section 12. Ecological Information

Ecotoxicity Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information

TDG Classification (Canada) CLASS 4.1: Flammable solid.
 Class 9.2: Environmentally hazardous material.

PIN (Canada) Shipping name: Naphthalene, crude or Naphthalene, refined UNNA: UN 1334 PG: III

Special Provisions for Transport (Canada) In inner packages of 500 g capacity or less this product is classified as a "Consumer Commodity" under TDG regulations.

IMDG Classification 4.1

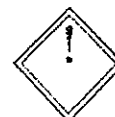
PIN Shipping name: Naphthalene, refined UNNA: UN 1334 PG: III

Marine Pollutant IMDG Class: Marine Pollutant. (Pollutant.)

DOT Classification (U.S.A) CLASS 4.1: Flammable solid.

PIN Naphthalene, crude or Naphthalene, refined, 4.1, UN 1334, III, Pollutant, RQ (Naphthalene)

Special Provisions for Transport (U.S.) In inner containers of 100 lbs (45.36 kg) capacity or less this product is exempt from DOT regulations (non regulated).



Section 15. Other Regulatory Information and Pictograms

WHMIS Classification (Canada) CLASS B-4: Flammable solid.
 Class D-2B: Material causing other toxic effects (TOXIC).



HCS Classification (U.S.A.) CLASS: Flammable solid.
 Class: Target organ effects.

USA Regulatory Lists TSCA inventory: Naphthalene

Validated on 5/18/2001.

Naphthalene

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**Hazardous Material
Information System
(U.S.A.)**

Health	2
Flammability	2
Reactivity	0
Personal Protection	E

**National Fire
Protection
Association (U.S.A.)****Section 16. Other Information**

Validated and verified by Product Development and Technical Coordinator on 5/18/2001.

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Notice to Reader

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