

# SAFETY DATA SHEET



Conforms to regulation (EC) no. EU 453/2010

## SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product Identifier

**Product Name:** Naphthalene -- Scintillation Grade

**Product Number:** SFC-40

### 1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against

Investigational research by professional users

### 1.3 Details of the Supplier of the Safety Data Sheet

#### Manufacturer

National Diagnostics  
305 Patton Drive  
Atlanta, GA 30036  
(404) 699-2121  
(800) 526-3867  
info@nationaldiagnostics.com

### 1.4 Emergency Telephone Number

#### ChemTel Inc.

Contract number MIS8894340

1-800 255-3924 (United States, Canada, Puerto Rico & US Virgin Islands)

01-800-099-0731 (Mexico)

400-120-0751 (China)

000-800-100-4086 (India)

1-300-954-583 (Australia)

0-800-591-6042 (Brazil)

+1-813-255-3924 (All other regions)

## SECTION 2 - HAZARDS IDENTIFICATION

### 2.1 Classification of the Substance or Mixture

**Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]**

H302 - Acute Toxicity-Oral (Category 4)

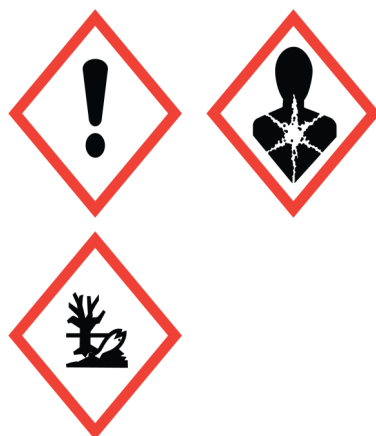
H351 - Carcinogenicity (Category 2)

H411 - Chronic Hazards to the Aquatic Environment (Category 2)

### 2.2 Label Elements

#### GHS LABEL ELEMENTS AND CLASSIFICATION

##### GHS Label Elements



#### WARNING

H302 - Harmful if swallowed

H351 - Suspected of causing cancer.

H410 - Very toxic to aquatic life with long lasting effects.

P202 - Do not handle until all safety precautions have been read and understood.

P273 - Avoid release to the environment.

P281 - Use personal protective equipment as required.

P308+P313 - IF exposed or concerned: Call a POISON CENTER or doctor/physician.

### 2.3 Other Hazards

None found.

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substance

#### Chemical Names/Description

Naphthene; mothballs; tar camphor; naphthalin; white-tar

#### Chemical Formula

C<sub>10</sub>H<sub>8</sub>

### Component List

Component	% Comp.	CAS #	EC #
Napthalene	>95	91-20-3	202-049-5

## SECTION 4 - FIRST AID MEASURES

### 4.1 Description of First Aid Measures

#### Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

#### Ingestion

DO NOT INDUCE VOMITING. If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

#### Skin

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

#### Eyes

Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

### 4.2 Most Important Symptoms and Effects, Both Acute and Delayed

#### Inhalation

The predominant reaction is delayed intravascular hemolysis with symptoms of anemia, fever, jaundice, and kidney liver damage.

#### Ingestion

May cause methemoglobinemia, cyanosis, convulsions, and death. May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. Ingestion of large quantities may cause severe hemolytic anemia and hemoglobinuria.

#### Skin

May cause rashes and allergy. Sensitized individuals may suffer a severe dermatitis.

#### Eyes

Redness and pain. Very high exposures can damage the nerves of the eye.

### 4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Unknown/not applicable

## SECTION 5 - FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Use media appropriate to the primary cause of fire.

### 5.2 Special Hazards Arising from the Substance/Mixture

#### Hazardous Combustion Products

Fire may produce irritating or poisonous gases.

#### Hazardous Decomposition Products

Carbon dioxide and carbon monoxide may form when heated to decomposition.

#### Hazardous Polymerization

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

### 5.3 Advice for Firefighters

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

### 5.4 Further Information

No data available.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions

Wear appropriate protective equipment as specified in Section 8.

### 6.2 Environmental Precautions

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

### 6.3 Methods and Materials for Containment and Cleaning Up

Eliminate source of ignition. Ventilate area. Cover with absorbent material (soda ash) to confine spill and sweep or shovel into container. Close container tightly. Avoid breathing vapors.

### 6.4 References to Other Sections

For disposal information see Section 13. For protective clothing and equipment see Section 8.

## SECTION 7 - HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Transfer methods should avoid static sparks. Use explosion proof ventilation.

### 7.2 Conditions for Safe Storage (including any incompatibles)

Keep in a tightly closed container, stored in a cooled, dry, ventilated area away from sources of heat or ignition. Protect from physical damage. Isolate from incompatible materials (section 10).

#### Incompatibles

Strong oxidizers, strong alkalis and strong mineral acids, mixtures of aluminum trichloride and benzoyl chloride. Reacts violently with chromic anhydride. Melted naphthalene will attack some forms of plastics, rubber, and coatings.

### 7.3 Specific End Uses

Investigational research by professional users

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

### 8.1 Control Parameters

#### ACGIH Threshold Limit Value (TLV):

10ppm, 52mg/m<sup>3</sup>(TWA)

#### OSHA Permissible Exposure Limit (PEL):

10ppm, 50mg/m<sup>3</sup>

### 8.2 Exposure Controls

#### Engineering Controls

Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

#### Respiratory Protection

If TLV of the product or any component is exceeded, a NIOSH/MSMA jointly approved self-contained breathing apparatus with a full facepiece operated in pressure-demand or other positive pressure mode is advised.

#### Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

#### Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on Basic Physical & Chemical Properties

a. Appearance	White crystals	b. Odor	Strong coal tar odor
c. Odor Threshold	0.08ppm	d. pH	No information found
e. Melting/Freezing Point (°C)	80	f. Boiling point (°C)	218
g. Flash Point (°C)	78.8	h. Evaporation Rate	<1
i. Flammability	N.A.	j. Upper/Lower Flammability or Explosive Limits	LEL:0.9; UEL:5.9
k. Vapor Pressure	1 @ 53C	l. Vapor Density (Air = 1)	4.4
m. Relative Density	1.2	n. Water Solubility	Insoluble in water
o. Partition Coefficient n-octanol/water	Log Pow 3.4	p. Autoignition Temperature (°C)	526
q. Decomposition Temperature (°C)	N.A.	r. Viscosity	No data available.
s. Explosive Properties	N.A.	t. Oxidizing Properties	Not an oxidizer

## SECTION 10 - STABILITY AND REACTIVITY

### 10.1 Reactivity

Not reactive under normal conditions of use.

### 10.2 Chemical Stability

Stable at room temperature in sealed containers. Sublimes appreciably at temperatures above melting point.

### 10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

### 10.4 Conditions to Avoid

Avoid heat, sparks, flames and other ignition sources and incompatibles

### 10.5 Incompatible Materials

Strong oxidizers, strong alkalis and strong mineral acids, mixtures of aluminum trichloride and benzoyl chloride. Reacts violently with chromic anhydride. Melted naphthalene will attack some forms of plastics, rubber, and coatings.

### 10.6 Hazardous Decomposition Products

Carbon dioxide and carbon monoxide may form when heated to decomposition.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Product LD50 Values

#### Oral Rat LD50 (mg/kg)

490

#### Dermal Rabbit LD50 (mg/kg)

20

### Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
Napthalene	No	No	None

### Potential Health Effects

#### Inhalation

Inhalation of dust or vapors can cause headache, nausea, vomiting, extensive sweating, and disorientation.

#### Ingestion

Toxic. Harmful if swallowed. May cause liver and kidney damage.

#### Skin

Can irritate the skin and, on prolonged contact.

#### Eyes

Vapors and solid causes irritation.

## Carcinogenicity

Not classifiable as a human carcinogen.

## Mutagenicity

Micronucleus test on human lymphocyte yielded 30 mg/L; Cytogenetic analysis on hamster ovary yielded 30 mg/L; Sister chromatid exchange on hamster ovary yielded 15 mg/L. Standard Draize tests: administration onto the skin of a rabbit yielded 495 mg, which is mild; and administration into a rabbit's eye yielded 100 mg, which is also mild.

## Reproductive Toxicity

No information available.

## Teratogenic Effects

Naphthalene and its metabolites have been reported to cross the human placenta in amounts sufficient to cause fetal toxicity.

## Routes of Entry

Ingestion, inhalation, skin and eye contact.

## Target Organ Statement

May affect liver, kidney, blood and central nervous system.

## SECTION 12 - ECOLOGICAL INFORMATION

### 12.1 Toxicity

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	LC50 (96hr, fathead minnow) 6mg/l	EC50 (48hr, daphnia) 2mg/l		IC50 (24hr) 29mg/l
	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

### 12.2 Persistence and Degradability

Readily biodegradable (99% in 15 days)

### 12.3 Bioaccumulative Potential

BCF 23=140 (low bioaccumulation)

### 12.4 Mobility in Soil

Log Koc 2.8

### 12.5 Results of PBT and vPvB Assessment

No data

### 12.6 Other Adverse Effects

None

## SECTION 13 - DISPOSAL CONSIDERATIONS

### 13.1 Waste Treatment Methods

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

## SECTION 14 - TRANSPORT INFORMATION

	ADR/RID	IATA	IMO	DOT
14.1 UN Number	1334	1334	1334	1334
14.2 Shipping Name	Naphthalene, Refined	Naphthalene, Refined	Naphthalene, Refined	Naphthalene, Refined
14.3 Hazard Class	4.1	4.1	4.1	4.1
14.4 Packing Group	III	III	III	III
14.5 Environmental Hazards	N.A.	N.A.	Not regulated	N.A.
14.6 Special Precautions	N.A.	N.A.	N.A.	N.A.

## SECTION 15 - REGULATORY INFORMATION

## 15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture

### United States

#### TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

#### SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
Naphthalene	Yes	No	No	Yes	Yes

### Europe

#### EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

## SECTION 16 - OTHER INFORMATION

### Revisional Updates

- 8/8/2023 - Updated Section 14.5
- 4/26/2019 - Updated Section 1.4
- 5/29/2015 - Updated Sections 2.1 and 3.1
- 8/12/2013 - Released Version 1.0

### NFPA Codes

Health 2 Flammability 2 Reactivity 0

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