

Material Safety Data Sheet

Revision date 03-Mar-2015

Supersedes date: 05-Jan-2014

Version 2

1. Identification of the Substance/Mixture and of the Company/Undertaking

Product Identification

Product name **1,2,3,4-TETRAHYDRONAPHTHALENE**
Chemical name 1,2,3,4-Tetrahydronaphthalene
CAS-No. 119-64-2

Use of the substance/mixture

Recommended Uses Heat transfer fluids, High boiling point solvent.
Uses advised against None known.

Company/undertaking identification

Company Schultz Canada Chemicals Ltd

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2. Hazards Identification

Hazard classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Hazardous to the aquatic environment, long-term hazard	Category 2

Warning label items including precautionary statement

Pictogram



Signal words: warning

Hazard statements	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
Precautionary statements	
Prevention	
P264	Wash hands thoroughly after handling.
P280	Wear eye protection/face protection.
Response	
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338	IF IN EYES::Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P391	Collect spillage.
Disposal	
P501	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with local/regional/national/international regulations .
Other hazards	
According to the European regulations are defined as non explosive hazardous substances.	
Mixture of steam and air to form explosive mixtures.	

3. Composition/Information on Ingredients

Component	Concentration (Weight %)	CAS No
1,2,3,4-Tetrahydronaphthalene	≥99	119-64-2
Decahydronaphthalene	≤1	91-17-8
Naphthalene	≤0.5	91-20-3

4. First-Aid Measures

General advice	In case of doubt or symptoms persist, seek medical advice. In case of unconscious, get medical attention immediately.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately if symptoms occur.
Skin contact	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. First wash with water, then wash with soap and water, then continue to use polyethylene glycol 400 to eliminate pollution. If skin irritation occurs: Get medical advice/attention.
Inhalation	Remove to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.
Ingestion	If swallowed: rinse mouth with water. Do NOT induce vomiting unless directed to do so by a physician. Call a physician immediately.
effects, both acute and delayed	
Notes to physician	Contact with hot material can cause thermal burns which may result in permanent damage. Symptomatic treatment.

5. Fire-Fighting Measures

Suitable extinguishing media	Water spray, Foam, Dry powder, Carbon dioxide (CO ₂).
Extinguishing media which shall not be used for safety reasons	Do not use direct water stream. May spread fire.
Special hazard	May ignite at high temperature. During fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Hydrocarbons. Carbon monoxide. Toxic to aquatic life with long lasting effects. Runoff may pollute waterways.
Special protective equipment for firefighters	As in any fire, wear self-contained breathing apparatus (SCBA), and full protective gear. Evacuate all persons from the vicinity. Promptly isolate the scene. Prevent fire extinguishing water from contaminating surface water and groundwater systems. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and extinguishing water contaminated must comply with local regulations for disposal. In the premise there is no danger of the container is removed from the scene in. Water spray to cool containers / tanks.

6. Accidental Release Measures

Personal precautions	Do not touch or walk through spilled material. Avoid contact skin, eyes and clothing. Wear personal protective equipment. If appropriate refer to headings 8.
Environmental precautions	Stop leak if safe to do so. Clean up spill immediately. Prevent from entering into soil, drains or water courses.
Methods for containment and cleaning up	Small spills: as far as possible the leaking fluid collection in airtight containers. Absorb with sand, diatomaceous earth or other inert materials. Large spills: constructing dike or have dug a pit for a large number of the leakage, and transferred to the properly labeled containers, recycling or shipped to the disposal of waste places. Clean contaminated surface thoroughly. Prevent product and washing from entering drains, sewers or surface water. If appropriate refer to headings 13.

7. Handling and Storage

Handling	Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Do not eat, drink or smoke when using this product. Wear personal protective equipment. Wash thoroughly after handling. Use in well ventilated areas. In case of insufficient ventilation, wear suitable respiratory equipment. See also headings 8.
Storage	Store in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from contact with oxidizing materials. Away from fire and heat source. Keep in properly labeled containers to avoid environmental contamination. Store in accordance with local regulations.

8. Exposure Controls/Personal Protection

Exposure limits

Component	ACGIH TLV	OSHA PEL
Naphthalene	TWA: 10 ppm 52 mg/m ³ STEL: 15 ppm 79 mg/m ³	TWA: 10 ppm 50 mg/m ³ STEL: 15 ppm 75 mg/m ³

Exposure controls

Engineering controls	Maintain air concentrations below occupational exposure standards. Apply technical measures to comply with the occupational exposure limits.If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.
Personal protective equipment	
Eye/face protection	Use chemical goggles. In order to avoid direct exposure to liquid splashes, mists or dusts suggestion: Wear safety glasses with side shields if splashing may occur, wear a mask.
Skin and body protection	Wear protective gloves.If necessary, wear protective clothing and rubber boots to prevent skin and body contact with liquid Material.
Respiratory protection	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hand Protection	Wear chemical resistant gloves. Please read carefully the glove supplier Explain the permeability about gloves and solvent penetration time.

9. Physical and Chemical Properties

Physical/ chemical properties Information

Appearance	
Physical state	liquid
Form	liquid
Color	colorless
Odor	Characteristic
Odor threshold	No data available
pH	No data available
Melting point/freezing point	-38°C
Boiling point/boiling range	207.6 °C (1013 hPa)
Flash point	78 °C
Evaporation Rate	No data available
Flammability (solid, gas)	Not flammable
Flammability Limits in Air	
Upper flammability limit	5.0% v/v
Lower flammability limit	0.8% v/v
Vapor pressure	0.24 hPa (20°C)
Vapor density	4.56
Specific gravity	0.97 g/cm ³ (20 °C)
Water solubility	45 mg/l (20°C)
Solubility in other solvents	No data available
Partition coefficient:n-octanol/water	Log Pow:3.78 (23°C)

Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	2.26 mm ² /s (20 °C)
Explosive properties	Not classified
Oxidizing properties	Not classified

10. Stability and Re-activity

Reactivity	Material is Stable under normal conditions.
Chemical stability	Material is Stable under normal conditions.
Possibility of hazardous reactions	None under normal conditions.
Conditions to avoid	Heating in air. Heat, sparks, flames. Avoid conditions which create dust.
Incompatible materials	Strong oxidizing agents.
Hazardous polymerization	Hazardous polymerization will not occur.
Hazardous decomposition products	Emits acrid smoke and fumes when heated to decomposition.

11. Toxicological Information

Information on likely routes of exposure

Eye contact	Causes serious eye irritation.
Skin contact	Causes skin irritation.
Inhalation	May be harmful if inhalation.
Ingestion	May be harmful if swallowed.

Information on toxicological effects

Acute toxicity	
Oral	LD50 (Rat): 2860 mg/kg.
Dermal	LD50 (Rabbit): 16800 mg/kg.
Inhalation	LC50 (Rat): 1.8 mg/l (8h, Aerosol).
Skin corrosion/irritation	Irritating to skin.
Serious eye damage/eye irritation	Don't irritate eyes.

Respiratory or skin sensitization	Skin Sensitization: non-sensitizing (Guinea Pig). Respiratory Sensitization:No information available.
Carcinogenicity	Limited evidence of a carcinogenic effect (CMR assessment).
Toxicity to reproduction	No information available.
Developmental toxicity	No information available.
Germ cell mutagenicity	Animal experiments did not show any mutagenic effect (CMR assessment).
Specific target organ toxicity - Single exposure	Not,classified.
Specific target organ toxicity - Repeated exposure	Not classified.
Aspiration hazard	No information available.
Other adverse effects	No information available.

12. Ecological Information

Ecotoxicity

Acute aquatic toxicity	
Fish	LC50: 3.2 mg/l (zebra fish, 96 h)
Aquatic invertebrates	EC50: 2.4 mg/l (Daphnia magna, 48 h)
Acute to aquatic plants	
Algae/aquatic plants	EC50: 7 mg/l (Algae, 72h)
Chronic aquatic toxicity	
Fish	No data available.
Aquatic invertebrates	No data available.
Toxicity to aquatic plants	No data available.
Persistence and degradability	
Biodegradation	81%,Readily biodegradable.
BOD/COD Ratio	No information available.
Bioaccumulative potential	
Bioconcentration factor (BCF)	No data available.
Partition coefficient n-octanol / water	No data available.

Mobility in soil	No information available.
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Other adverse effects	No information available.
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13. Disposal Considerations

Waste disposal methods	Do not allow into any sewers, ground, or into any water. All disposal practices must be in compliance with state and local laws and regulations. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in headings 8 (exposure controls and personal protection) of the SDS.
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Contaminated packaging	Empty packaging should be taken to an approved waste handling site for recycling or disposal.
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14. Transport Information

DOT

UN/ID No.	UN 3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,2,3,4-Tetrahydronaphthalene)
Hazard class	9
Packing group	III

IMDG

UN/ID No.	UN 3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,2,3,4-Tetrahydronaphthalene)
Hazard class	9
Packing group	III

IATA

UN/ID No.	UN 3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,2,3,4-Tetrahydronaphthalene)
Hazard class	9
Packing group	III

15. Regulatory Information

United States	
SARA 311-312 Hazard Classification(s)	Fire hazard. Immediate (acute) health hazard. Delayed (chronic) health hazard.
US EPCRA (SARA Title III) Section 313 - Toxic Chemical List	Naphthalene.
OSHA	hazardous.

16. Other Information

Supersedes date	05-Jan-2014
Revision date	03-Mar-2015
Revision Note	New SDS format. SDS sections updated: All.

Disclaimer

The SDS information applies only to the specified product, unless otherwise specified, in the case of a mixture of this product with other substances, which do not apply. The information provided is a guide for the safe operation and not as a guarantee of the quality manual. The SDS only those received professional training in the proper use of the product provides product safety information for. Users of this SDS, under special conditions of use must be made of the suitability of the SDS independent judgment. In special occasions, due to the use of this SDS caused injury, this SDS writers will not be held responsible.
