

## Material Safety Data Sheet

Date Printed: 09/JUN/2005

Date Updated: 12/MAR/2004

Version 1.3

According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

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1 - Product and Company Information

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Product Name	1,2,3,4-TETRAHYDRONAPHTHALENE, REAGENTPLUS, 99%
Product Number	429325
Company	Sigma-Aldrich Pty. Ltd. 12 Anella Avenue Castle Hill NSW 2154 Australia
Technical Phone #	+61 2 9841 0555 (1800 800 097)
Fax	+61 2 9841 0500 (1800 800 096)
Emergency Phone #	+44 8701906777 (1800 448 465)

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2 - Composition/Information on Ingredients

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Product Name	CAS #	EC no	Annex I Index Number
1,2,3,4-TETRAHYDRONAPHTHALENE	119-64-2	204-340-2	601-045-00-4

Ingredient Name	Percent	CAS #	EC no	Annex I
NAPHTHALENE	0.7	91-20-3	202-049-5	601-052-00-2

Carc. Cat.3

Symbols: Xn N

R-Phrases: 22 40 50/53

Harmful if swallowed. Limited evidence of a carcinogenic effect.  
Very toxic to aquatic organisms, may cause long-term adverse  
effects in the aquatic environment.

Formula	C10H12
Molecular Weight	132.21 AMU
Synonyms	Naphthalene 1,2,3,4-tetrahydride * Delta(sup 5,7,9)-naphthantriene * Tetrahydronaphthalene * 1,2,3,4-Tetrahydronaphthalene * Tetralin * Tetralina (Polish) * Tetraline * Tetranap

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3 - Hazards Identification

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## SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

May form explosive peroxides. Irritating to eyes and skin. Toxic  
to aquatic organisms, may cause long-term adverse effects in the  
aquatic environment.

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4 - First Aid Measures

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## AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give  
artificial respiration. If breathing is difficult, give oxygen.

#### AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

#### AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

#### AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

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### 5 - Fire Fighting Measures

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#### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

#### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions. Combustible liquid.

Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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### 6 - Accidental Release Measures

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#### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

#### METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

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### 7 - Handling and Storage

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#### HANDLING

Directions for Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

#### STORAGE

Conditions of Storage: Keep tightly closed. Keep away from heat and open flame.

SPECIAL REQUIREMENTS: Store under inert gas. Air and light sensitive. Heat sensitive.

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### 8 - Exposure Controls / Personal Protection

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#### ENGINEERING CONTROLS

Safety shower and eye bath. Use only in a chemical fume hood.

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

#### EXPOSURE LIMITS

Country	Source	Type	Value
Poland		NDS	100 MG/M3
Poland		NDSch	300 MG/M3
Poland		NDSP	-

#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

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### 9 - Physical and Chemical Properties

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Appearance	Physical State: Liquid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	204 - 207 °C	
MP/MP Range	-35 °C	
Flash Point	75 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	384 °C	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	Lower: 0.8 % Upper: 5 %	
Vapor Pressure	0.18 mmHg	20 °C
SG/Density	0.969 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	4.55 g/l	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	< 0.05 %	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

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### 10 - Stability and Reactivity

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#### STABILITY

Stable: Stable.

Conditions of Instability: May form peroxides of unknown stability.

Conditions to Avoid: Light. Heat. Air.

Materials to Avoid: Oxidizing agents.

#### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

#### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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### 11 - Toxicological Information

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RTECS NUMBER: QK3850000

#### ACUTE TOXICITY

LD50  
Oral  
Rat  
1620 UL/KG

LD50  
Skin  
Rabbit  
17300 UL/KG

LC50  
Inhalation  
Guinea pig  
275 ppm

#### IRRITATION DATA

Skin  
Rabbit  
500 mg  
Remarks: Open irritation test

#### SENSITIZATION

Sensitization: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

#### SIGNS AND SYMPTOMS OF EXPOSURE

Can cause CNS depression.

#### ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.  
Skin Absorption: May be harmful if absorbed through the skin.  
Eye Contact: Causes eye irritation.  
Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.  
Ingestion: Harmful if swallowed.

#### TARGET ORGAN INFORMATION

Eyes. Kidneys. Central nervous system. Blood. Lungs. Liver.

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#### 12 - Ecological Information

No data available.

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#### 13 - Disposal Considerations

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#### SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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#### 14 - Transport Information

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#### RID/ADR

UN#: 3082  
Class: 9  
PG: III  
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s.

#### IMDG

UN#: 3082  
Class: 9  
PG: III  
Proper Shipping Name: Environmentally hazardous  
substance, liquid, n.o.s.  
Marine Pollutant: No  
Severe Marine Pollutant: No  
Technical Name: Required

#### IATA

UN#: 3082  
Class: 9  
PG: III  
Proper Shipping Name: Environmentally hazardous  
substance, liquid, n.o.s.  
Inhalation Packing Group I: No  
Technical Name: Required

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### 15 - Regulatory Information

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#### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 601-045-00-4

INDICATION OF DANGER: Xi N

Irritant. Dangerous for the environment.

R-PHRASES: 19 36/38 51/53

May form explosive peroxides. Irritating to eyes and skin.

Toxic to aquatic organisms, may cause long-term adverse effects  
in the aquatic environment.

S-PHRASES: 26 28 61

In case of contact with eyes, rinse immediately with plenty of  
water and seek medical advice. After contact with skin, wash  
immediately with plenty of water. Avoid release to the  
environment. Refer to special instructions/safety data sheets.

#### COUNTRY SPECIFIC INFORMATION

##### Germany

WGK: 2

##### SWITZERLAND

SWISS POISON CLASS: 4

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### 16 - Other Information

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#### WARRANTY

The above information is believed to be correct but does not  
purport to be all inclusive and shall be used only as a guide. The  
information in this document is based on the present state of our  
knowledge and is applicable to the product with regard to  
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