

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	Harmful compound, minimize exposure. Irritating to skin, eyes, and the respiratory system. Environmental hazard.	

## Section I. Chemical Product and Company Identification

Chemical Name	<b>2-Methylnaphthalene (β-)</b>		
Catalog Number	M0372	Supplier	TCl America 9211 N. Harborgate St. Portland OR 1-800-423-8616
Synonym	Not available.		
Chemical Formula	CH <sub>3</sub> C <sub>10</sub> H <sub>7</sub>		
CAS Number	91-57-6	In case of Emergency Call	<b>Chemtrec®</b> <b>(800) 424-9300 (U.S.)</b> <b>(703) 527-3887 (International)</b>

## Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
2-Methylnaphthalene (β-)	91-57-6	Min. 96.0 (GC)	Not available.	Rat LD <sub>50</sub> (oral) 1630 mg/kg Mouse LDLo (intraperitoneal) 1000 mg/kg

## Section III. Hazards Identification

Acute Health Effects	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	<b>CARCINOGENIC EFFECTS</b> : Not available. <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Not available. <b>DEVELOPMENTAL TOXICITY</b> Not available. There is no known effect from chronic exposure to this product. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

## Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. DO NOT use an eye ointment. Flush eyes with running water for a minimum of 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention. Treat symptomatically and supportively.
Skin Contact	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. Seek medical attention. Treat symptomatically and supportively. Wash any contaminated clothing before reusing.
Inhalation	If the victim is not breathing, perform artificial respiration. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention. Treat symptomatically and supportively.
Ingestion	INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt, or waistband. If the victim is not breathing, administer artificial respiration. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Seek immediate medical attention and, if possible, show the chemical label. Treat symptomatically and supportively.

## Section V. Fire and Explosion Data

Flammability	Combustible.	Auto-Ignition	Not available.
Flash Points	97°C (206.6°F).	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO <sub>2</sub> ).		
Fire Hazards	No specific information is available regarding the flammability of this compound in the presence of various materials.		
Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. No additional information is available regarding the risks of explosion.		

Continued on Next Page

Emergency phone number (800) 424-9300

Fire Fighting Media  
and Instructions

SMALL FIRE: Use DRY chemicals, CO<sub>2</sub>, water spray or foam.  
LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.

### Section VI. Accidental Release Measures

Spill Cleanup  
Instructions

Harmful material. Irritating material. Environmentally hazardous material.  
In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and exercise caution. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning the spill by rinsing any contaminated surfaces with copious amounts of water. Consult federal, state, and/or local authorities for assistance on disposal.

### Section VII. Handling and Storage

Handling and Storage  
Information

HARMFUL. IRRITANT. ENVIRONMENTAL HAZARD. Keep away from heat and sources of ignition. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. DO NOT ingest. DO NOT breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively. Avoid contact with skin and eyes.

Always store away from incompatible compounds such as oxidizing agents.

### Section VIII. 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

Splash goggles. Lab coat. Dust respirator. Boots. Gloves. A MSHA/NIOSH approved respirator must be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.



Exposure Limits

Not available.

### Section IX. Physical and Chemical Properties

Physical state @ 20°C	White crystalline powder.	Solubility	Easily soluble in methanol, diethyl ether. Soluble in benzene.
Specific Gravity	1		
Molecular Weight	142.2	Partition Coefficient	The product is more soluble in water; log(oil/water) = -0.59
Boiling Point	241 to 242°C	Vapor Pressure	6.81 mm of Hg (@ 25°C)
Melting Point	31 to 35°C	Vapor Density	Not available.
Refractive Index	1.6015 (@ 40°C)	Volatility	Not available.
Critical Temperature	488°C (910.4°F)	Odor	Not available.
Viscosity	Not available.	Taste	Not available.

### Section X. Stability and Reactivity Data

Stability	This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability	Avoid excessive heat and light.
Incompatibilities	Reactive with oxidizing agents.

### Section XI. Toxicological Information

RTECS Number	QJ9635000
Routes of Exposure	Eye contact. Ingestion. Inhalation. Skin contact.
Toxicity Data	Rat LD <sub>50</sub> (oral) 1630 mg/kg Mouse LDLo (intraperitoneal) 1000 mg/kg
Chronic Toxic Effects	<b>CARCINOGENIC EFFECTS</b> : Not available. <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Not available. <b>DEVELOPMENTAL TOXICITY</b> Not available. There is no known effect from chronic exposure to this product. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

Continued on Next Page

Emergency phone number (800) 424-9300

Acute Toxic Effects	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
---------------------	---

## Section XII. Ecological Information

Ecotoxicity	Not available.
Environmental Fate	2-Methylnaphthalene is a component of crude oil and a product of combustion which is produced and released to the environment during natural fires. Emissions from petroleum refining, coal tar distillation, and gasoline and diesel fueled engines are major contributors of 2-methylnaphthalene to the environment. Pure 2-methylnaphthalene is primarily used in vitamin K production and as a chemical intermediate. Consequently, 2-methylnaphthalene may be released to the environment via manufacturing effluents and the disposal of waste byproducts. Because of the widespread use of 2-methylnaphthalene in a variety of products, 2-methylnaphthalene is also released to the environment through landfills, municipal waste water treatment facilities and waste incinerators. 2-Methylnaphthalene should biodegrade rapidly in the environment where micro-organisms have acclimated to polycyclic aromatic hydrocarbons and at a moderate rate in unacclimated soils and aquatic systems. Hydrolysis and bioconcentration of 2-methylnaphthalene should not be an important fate processes in the environment. The direct photolysis half-life for 2-methylnaphthalene in sunlit waters at midday, midsummer and 40 deg N latitude was predicted to be 54 hr. Photolysis is also likely to occur in air and on sunlit soil surfaces. A measured Koc of 8500 indicates 2-methylnaphthalene will be immobile in soil. In aquatic systems, 2-methylnaphthalene may partition from the water column to organic matter contained in sediments and suspended solids. A Henry's Law constant of $5.18 \times 10^{-4}$ atm-cu m/mole at 25 deg C suggests volatilization of 2-methylnaphthalene from environmental waters may be important. The volatilization half-lives from a model river and model pond, the latter considers the effect of adsorption, have been estimated to be 5.5 hr to 77.7 days, respectively. 2-Methylnaphthalene is expected to exist entirely in the vapor phase in ambient air. Reactions with photochemically produced hydroxyl radicals (half-life of 7.4 hr) and ozone (half-life of 28.7 days) in the atmosphere are likely to be important fate processes. Nighttime reactions with dinitrogen pentoxide (half-life of 9.6 days) may contribute to the atmospheric transformation of 2-methylnaphthalene. The most probable human exposure would be occupational exposure, which may occur through dermal contact or inhalation at places where 2-methylnaphthalene is produced or used. Atmospheric workplace exposures have been documented. Non-occupational exposures would most likely occur via urban atmospheres, contaminated drinking water supplies and recreational activities at contaminated waterways. (HSDB)

## Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local or regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state, and local regulations when disposing of this substance.
----------------	--

## Section XIV. Transport Information

DOT Classification	DOT CLASS 9: Miscellaneous Hazard
PIN Number	UN3077
Proper Shipping Name	Environmentally hazardous substance, solid, n.o.s.
Packing Group (PG)	III
DOT Pictograms	



## Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	This product is <b>ON</b> the EPA Toxic Substances Control Act (TSCA) inventory.
WHMIS Classification (Canada)	WHMIS CLASS D-2B: Material causing other toxic effects (TOXIC).
EINECS Number (EEC)	202-078-3
EEC Risk Statements	R22- Harmful if ingested. R36/37/38- Irritating to eyes, respiratory system and skin.
Japanese Regulatory Data	Not available.

## Section XVI. Other Information

Version 1.0  
Validated on 6/23/2005.  
Printed 6/23/2005.

### Notice to Reader

TCl laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, household, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.