

Product Name: INSTINCT II Nitrogen Stabilizer**Issue Date:** 03/21/2013**Print Date:** 10 Jun 2013

Dow AgroSciences LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. Product and Company Identification

Product Name

INSTINCT II Nitrogen Stabilizer

COMPANY IDENTIFICATION

Dow AgroSciences LLC
A Subsidiary of The Dow Chemical Company
9330 Zionsville Road
Indianapolis, IN 46268-1189
United States

Customer Information Number:

800-992-5994

SDSQuestion@dow.com**EMERGENCY TELEPHONE NUMBER****24-Hour Emergency Contact:**

800-992-5994

Local Emergency Contact:

352-323-3500

2. Hazards Identification

Emergency Overview**Color:** Tan**Physical State:** Liquid.**Odor:** Mild**Hazards of product:**

WARNING! May cause allergic skin reaction. Aspiration hazard. Can enter lungs and cause damage. Toxic fumes may be released in fire situations. Highly toxic to fish and/or other aquatic organisms. Suspect cancer hazard. May cause cancer.

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential Health Effects**Eye Contact:** Essentially nonirritating to eyes.**Skin Contact:** Essentially nonirritating to skin.**Skin Absorption:** Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Skin Sensitization: Has demonstrated the potential for contact allergy in mice.

Inhalation: No adverse effects are anticipated from single exposure to mist. Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

Ingestion: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

Aspiration hazard: Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

Effects of Repeated Exposure: For the active ingredient(s): In animals, effects have been reported on the following organs: Blood. Kidney. Liver. Female reproductive organs. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use. Based on information for component(s): Excessive exposure may cause hemolysis, thereby impairing the blood's ability to transport oxygen. Cataracts and other eye effects have been reported in humans repeatedly exposed to naphthalene vapor or dust. Ingestion of naphthalene by humans has caused hemolytic anemia. Excessive exposure to solvent(s) may cause respiratory irritation and central nervous system depression.

Cancer Information: For the active ingredient(s): Kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans. Contains naphthalene which has caused cancer in some laboratory animals. In humans, there is limited evidence of cancer in workers involved in naphthalene production. Limited oral studies in rats were negative.

Birth Defects/Developmental Effects: For the active ingredient(s): Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Exposures having no effect on the mother should have no effect on the fetus.

3. Composition Information

Component	CAS #	Amount
Nitrapyrin	1929-82-4	16.95 %
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	18.0 %
Propylene glycol	57-55-6	13.6 %
2-Methylnaphthalene	91-57-6	4.7 %
Naphthalene	91-20-3	2.5 %
1-Methylnaphthalene	90-12-0	2.3 %
Balance	Not available	41.95 %

4. First-aid measures

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Skin Contact: Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly.

Eye Contact: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

Ingestion: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed

If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. The decision of whether to induce vomiting or not should be made by a physician. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. Fire Fighting Measures

Suitable extinguishing media

To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Special hazards arising from the substance or mixture

Hazardous Combustion Products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Sulfur oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Ammonia.

Unusual Fire and Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn.

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Keep upwind of spill. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

7. Handling and Storage

Handling

General Handling: Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Storage

Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

8. Exposure Controls / Personal Protection

Exposure Limits

Component	List	Type	Value
Nitrapyrin	ACGIH	TWA	10 mg/m ³
	ACGIH	STEL	20 mg/m ³
	OSHA Table Z-1	PEL Respirable fraction.	5 mg/m ³
	OSHA Table Z-1	PEL Total dust.	15 mg/m ³
Propylene glycol	WEEL	TWA Aerosol.	10 mg/m ³
2-Methylnaphthalene	ACGIH	TWA	0.5 ppm SKIN
Naphthalene	ACGIH	TWA	10 ppm SKIN
	ACGIH	STEL	15 ppm SKIN
	OSHA Table Z-1	PEL	50 mg/m ³ 10 ppm
1-Methylnaphthalene	ACGIH	TWA	0.5 ppm SKIN

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

A "skin" notation following the inhalation exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact.

It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

Personal Protection

Eye/Face Protection: Use safety glasses (with side shields).

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Styrene/butadiene rubber. Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may

be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

Engineering Controls

Ventilation: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. 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.

9. Physical and Chemical Properties

Appearance	
Physical State	Liquid.
Color	Tan
Odor	Mild
pH	8.51 <i>pH Electrode</i>
Melting Point	Not applicable
Freezing Point	No test data available
Boiling Point (760 mmHg)	No test data available.
Flash Point - Closed Cup	> 100 °C (> 212 °F) <i>Pensky-Martens Closed Cup ASTM D 93</i>
Flammability (solid, gas)	Not available
Flammable Limits In Air	Lower: No test data available Upper: No test data available
Vapor Pressure	No test data available
Vapor Density (air = 1)	No test data available
Specific Gravity (H₂O = 1)	No test data available
Solubility in water (by weight)	No test data available
Partition coefficient, n-octanol/water (log Pow)	No data available for this product. See Section 12 for individual component data.
Autoignition Temperature	No test data available
Decomposition Temperature	No test data available
Kinematic Viscosity	No test data available
Explosive properties	No
Oxidizing properties	No significant increase (>5C) in temperature.
Liquid Density	1.12 g/ml @ 20 °C <i>Digital density meter</i>

10. Stability and Reactivity

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Thermally stable at recommended temperatures and pressures.

Possibility of hazardous reactions

Polymerization will not occur.

Conditions to Avoid: Some components of this product can decompose at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible Materials: Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Ammonia. Hydrogen chloride. Sulfur oxides.

11. Toxicological Information

Acute Toxicity

Ingestion

As product: LD50, rat, female > 5,000 mg/kg

Dermal

No deaths occurred at this concentration. LD50, rat, male and female > 5,000 mg/kg

Inhalation

As product: LC50, 4 h, Aerosol, rat, male and female > 5.14 mg/l

No deaths occurred at this concentration.

Eye damage/eye irritation

Essentially nonirritating to eyes.

Skin corrosion/irritation

Essentially nonirritating to skin.

Sensitization

Skin

Has demonstrated the potential for contact allergy in mice.

Respiratory

No relevant data found.

Repeated Dose Toxicity

For the active ingredient(s): In animals, effects have been reported on the following organs: Blood. Kidney. Liver. Female reproductive organs. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use. Based on information for component(s): Excessive exposure may cause hemolysis, thereby impairing the blood's ability to transport oxygen. Cataracts and other eye effects have been reported in humans repeatedly exposed to naphthalene vapor or dust. Ingestion of naphthalene by humans has caused hemolytic anemia. Excessive exposure to solvent(s) may cause respiratory irritation and central nervous system depression.

Chronic Toxicity and Carcinogenicity

For the active ingredient(s): Kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans. Contains naphthalene which has caused cancer in some laboratory animals. In humans, there is limited evidence of cancer in workers involved in naphthalene production. Limited oral studies in rats were negative.

Carcinogenicity Classifications:

Component	List	Classification
Naphthalene	IARC NTP	Possibly carcinogenic to humans.; 2B Anticipated carcinogen.

Developmental Toxicity

For the active ingredient(s): Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Exposures having no effect on the mother should have no effect on the fetus. Did not cause birth defects in laboratory animals.

Reproductive Toxicity

For the active ingredient(s): In animal studies, did not interfere with reproduction.

Genetic Toxicology

For the active ingredient(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative. For the component(s) tested: In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

12. Ecological Information

Toxicity

Data for Component: **Nitrapyrin**

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested). Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg). Material is slightly toxic to birds on a dietary basis (LC50 between 1001 and 5000 ppm).

Fish Acute & Prolonged Toxicity

LC50, *Lepomis macrochirus* (Bluegill sunfish), static test, 96 h: 3.4 - 7.9 mg/l

LC50, rainbow trout (*Oncorhynchus mykiss*), static test, 96 h: 4 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, eastern oyster (*Crassostrea virginica*), flow-through test, 96 h, shell growth inhibition: 1.8 mg/l

LC50, *Daphnia magna* (Water flea), flow-through test, 48 h, mortality: 2.2 mg/l

Aquatic Plant Toxicity

ErC50, *Pseudokirchneriella subcapitata* (green algae), Growth rate inhibition, 72 h: 1.7 mg/l

Fish Chronic Toxicity Value (ChV)

fathead minnow (*Pimephales promelas*), 34 d, NOEC: 2.87 mg/l

Toxicity to Above Ground Organisms

oral LD50, *Anas platyrhynchos* (Mallard duck): 2708 mg/kg bodyweight.

dietary LC50, *Anas platyrhynchos* (Mallard duck): 1466 mg/kg diet.

dietary LC50, *Coturnix japonica* (Japanese quail): 820 mg/kg diet.

Toxicity to Soil Dwelling Organisms

LC50, *Eisenia fetida* (earthworms), 15 d: 209 mg/kg

Data for Component: **Solvent naphtha (petroleum), heavy aromatic**

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LL50, *Oncorhynchus mykiss* (rainbow trout), static test, 96 h: 2 - 5 mg/l

Aquatic Invertebrate Acute Toxicity

EL50, *Daphnia magna* (Water flea), static test, 48 h, immobilization: 3 - 10 mg/l

Aquatic Plant Toxicity

EL50, *Pseudokirchneriella subcapitata* (green algae), static test, 72 h: 11 mg/l

Toxicity to Above Ground Organisms

Based on information for a similar material: dietary LC50, *Colinus virginianus* (Bobwhite quail): > 6,500 ppm

Based on information for a similar material: oral LD50, *Colinus virginianus* (Bobwhite quail): > 2,250 mg/kg

Data for Component: **Propylene glycol**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 > 100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, *Oncorhynchus mykiss* (rainbow trout), static test, 96 h: 40,613 mg/l

Aquatic Invertebrate Acute Toxicity

LC50, *Ceriodaphnia Dubia* (water flea), static test, 48 h: 18,340 mg/l

Aquatic Plant Toxicity

ErC50, *Pseudokirchneriella subcapitata* (green algae), Growth rate inhibition, 96 h: 19,000 mg/l

Toxicity to Micro-organisms

EC50, activated sludge test (OECD 209), Respiration inhibition, 3 h: > 1,000 mg/l

Aquatic Invertebrates Chronic Toxicity Value

Ceriodaphnia Dubia (water flea), semi-static test, 7 d, number of offspring, NOEC: 13020 mg/l

Data for Component: **Naphthalene**

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, Oncorhynchus mykiss (rainbow trout), 96 h: 0.11 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, Daphnia magna (Water flea), static test, 48 h, immobilization: 1.6 - 24.1 mg/l

Fish Chronic Toxicity Value (ChV)

Other, flow-through test, 40 d, mortality, NOEC, NOEC:0.37 mg/l

Data for Component: 1-Methylnaphthalene

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC50, Pimephales promelas (fathead minnow), static test, 96 h: 6.4 mg/l

Aquatic Invertebrate Acute Toxicity

, Daphnia magna (Water flea), static test, 48 h, mortality: 6.5 mg/l

Data for Component: Balance

No relevant data found.

Persistence and Degradability**Data for Component: Nitrapyrin**

Chemical degradation (hydrolysis) is expected in the environment within days to weeks.

Degradation is expected in the soil environment within days to weeks.

Stability in Water (1/2-life):

186 h; 25 °C; pH 5;hydrolysis

173 - 233 h; 25 °C; pH 7;hydrolysis

129 h; 25 °C; pH 9;hydrolysis

Theoretical Oxygen Demand: 0.97 mg/mg**Data for Component: Solvent naphtha (petroleum), heavy aromatic**

Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
39 %	28 d	OECD 301D Test	fail

Data for Component: Propylene glycol

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Biodegradation may occur under anaerobic conditions (in the absence of oxygen).

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
81 %	28 d	OECD 301F Test	pass
96 %	64 d	OECD 306 Test	Not applicable

Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
1.28E-11 cm ³ /s	10 h	Estimated.

Biological oxygen demand (BOD):

BOD 5	BOD 10	BOD 20	BOD 28
69.0 %	70.0 %	86.0 %	

Chemical Oxygen Demand: 1.53 mg/mg**Theoretical Oxygen Demand:** 1.68 mg/mg**Data for Component: Naphthalene**

Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%).

Indirect Photodegradation with OH Radicals

Rate Constant	Atmospheric Half-life	Method
2.16E-11 cm ³ /s	5.9 h	Estimated.

Biological oxygen demand (BOD):			
BOD 5	BOD 10	BOD 20	BOD 28
57.000 %	71.000 %	71.000 %	

Theoretical Oxygen Demand: 3.00 mg/mg

Data for Component: **1-Methylnaphthalene**

Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%).

Biological oxygen demand (BOD):			
BOD 5	BOD 10	BOD 20	BOD 28
62 %	66 %	66 %	

Data for Component: **Balance**

No relevant data found.

Bioaccumulative potential

Data for Component: **Nitrapyrin**

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient, n-octanol/water (log Pow): 3.324 Measured

Bioconcentration Factor (BCF): < 85; Lepomis macrochirus (Bluegill sunfish); Measured

Data for Component: **Solvent naphtha (petroleum), heavy aromatic**

Bioaccumulation: Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

Partition coefficient, n-octanol/water (log Pow): 2.9 - 6.1 Measured

Data for Component: **Propylene glycol**

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient, n-octanol/water (log Pow): -1.07 Measured

Bioconcentration Factor (BCF): 0.09; Estimated.

Data for Component: **Naphthalene**

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient, n-octanol/water (log Pow): 3.3 Measured

Bioconcentration Factor (BCF): 40 - 300; Fish; Measured

Data for Component: **1-Methylnaphthalene**

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient, n-octanol/water (log Pow): 4 Estimated.

Bioconcentration Factor (BCF): 200; Fish

Data for Component: **Balance**

Bioaccumulation: No relevant data found.

Mobility in soil

Data for Component: **Nitrapyrin**

Mobility in soil: Potential for mobility in soil is medium (Koc between 150 and 500).

Partition coefficient, soil organic carbon/water (Koc): 321 Measured

Henry's Law Constant (H): 1.4E-05 Pa*m³/mole.

Data for Component: **Solvent naphtha (petroleum), heavy aromatic**

Mobility in soil: No data available.

Data for Component: **Propylene glycol**

Mobility in soil: Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process., Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient, soil organic carbon/water (Koc): < 1 Estimated.

Henry's Law Constant (H): 1.2E-08 atm*m³/mole Measured

Data for Component: **Naphthalene**

Mobility in soil: Potential for mobility in soil is medium (Koc between 150 and 500).

Partition coefficient, soil organic carbon/water (Koc): 240 - 1,300 Measured

Henry's Law Constant (H): 2.92E-04 - 5.53E-04 atm*m³/mole; 25 °C Measured

Distribution in Environment: Mackay Level 1 Fugacity Model:				
Air	Water.	Biota	Soil	Sediment
74 %	8.5 %	< 0.01 %	18 %	0.39 %

Data for Component: **1-Methylnaphthalene**

Mobility in soil: No relevant data found.

Data for Component: **Balance**

Mobility in soil: No relevant data found.

13. Disposal Considerations

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

14. Transport Information

DOT Non-Bulk

NOT REGULATED

DOT Bulk

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Technical Name: Solvent naphtha (petroleum), heavy aromatic, NAPHTHALENE

Hazard Class: 9 **ID Number:** UN3082 **Packing Group:** PG III

IMDG

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Technical Name: Solvent naphtha (petroleum), heavy aromatic, NAPHTHALENE

Hazard Class: 9 **ID Number:** UN3082 **Packing Group:** PG III

EMS Number: F-A,S-F

Marine pollutant.: Yes

ICAO/IATA

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Technical Name: Solvent naphtha (petroleum), heavy aromatic, NAPHTHALENE

Hazard Class: 9 **ID Number:** UN3082 **Packing Group:** PG III

Cargo Packing Instruction: 964

Passenger Packing Instruction: 964

Additional Information

Reportable quantity: 3,967 lb – NAPHTHALENE

MARINE POLLUTANT

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. Regulatory Information

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	Yes
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

Component	CAS #	Amount
Nitrapyrin	1929-82-4	16.95%
Naphthalene	91-20-3	2.5%

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Component	CAS #	Amount
Nitrapyrin	1929-82-4	16.9493%
1-Methylnaphthalene	90-12-0	>= 0.0 - < 2.2509 %
Naphthalene	91-20-3	>= 0.0 - < 2.521 %
2-Methylnaphthalene	91-57-6	>= 0.0 - < 4.6819 %
Propylene glycol	57-55-6	13.5828%
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	18.0073%

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103

This product contains the following substances which are subject to CERCLA Section 103 reporting requirements and which are listed in 40 CFR 302.4.

Component	CAS #	Amount
Naphthalene	91-20-3	2.5%

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

Toxic Substances Control Act (TSCA)

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

16. Other Information

Hazard Rating System

NFPA	Health	Fire	Reactivity
	1	1	0

Revision

Identification Number: 1065508 / 1016 / Issue Date 03/21/2013 / Version: 1.0

DAS Code: GF-2937

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for activities such as exposure monitoring and medical surveillance if exceeded.

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