

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Dinotefuran


2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008
Acute toxicity, Oral (Category 4)
Eye irritation (Category 2)

According to European Directive 67/548/EEC as amended.
Harmful if swallowed. May cause long-term adverse effects in the aquatic environment. Toxic to soil organisms.
Toxic to bees.

Label elements

Pictogram	
Signal word	Warning
Hazard statement(s) H302 H319	Harmful if swallowed. Causes serious eye irritation.
Precautionary statement(s) P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Hazard symbol(s) Xn N	Harmful Dangerous for the environment
R-phrases(s) R22 R53 R56 R57	Harmful if swallowed. May cause long-term adverse effects in the aquatic environment. Toxic to soil organisms. Toxic to bees.
S-phrases(s) S61	Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 1-Methyl-2-nitro-3-[(3-tetrahydrofuryl)methyl]guanidine
(RS)-N-Methyl-N'-nitro-N''-[(tetrahydro-3-furanyl)methyl]guanidine

Formula : C7H14N4O3

Molecular Weight : 202,21 g/mol

CAS-No.	EC-No.	Classification	Concentration
1-Methyl-2-nitro-3-[(3-tetrahydrofuryl)methyl]guanidine 165252-70-0	-	-	-
		Acute Tox. 4; Eye Irrit. 2; H302, H319 <u>Xn, N, R22 - R53 - R56 - R57</u>	

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Light sensitive. Store under inert gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

Eye protection

Safety glasses with side-shields conforming to EN166

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form crystalline

Colour white

Safety data

pH no data available

Melting point 106 - 111 °C

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility 39,8 g/l at 20 °C

Partition coefficient: n-octanol/water log Pow: -0,549 at 25 °C

Solubility 19 g/l Ethanol

57 g/l Methanol

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

Exposure to sunlight

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - male - 2.804 mg/kg

LD50 Oral - rat - female - 2.000 mg/kg

LD50 Dermal - rat - > 2.000 mg/kg

Skin corrosion/irritation

Skin - rabbit - Mild skin irritation

Serious eye damage/eye irritation

Eyes - rabbit - Mild eye irritation

Respiratory or skin sensitization

guinea pig - Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion Harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Additional Information

RTECS: no data available

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish LC50 - Lepomis macrochirus (Bluegill) - > 1.000 mg/l - 96 h

LC50 - other fish - 4,84 mg/l - 48 h

Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia - > 1.000 mg/l - 48 h

LC50 - Crangon crangon (shrimp) - 0,79 mg/l - 96 h

Toxicity to algae EbC50 - Pseudokirchneriella subcapitata (green algae) - > 100 mg/l - 72 h

Persistence and degradability

Biodegradability aerobic
Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

May cause long-term adverse effects in the aquatic environment. Toxic to bees. Toxic to soil organisms.

13. DISPOSAL CONSIDERATIONS

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. OTHER INFORMATION

Text of H-code(s) and R-phrases mentioned in Section 3

Acute Tox. Acute toxicity
Eye Irrit. Eye irritation
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
N Dangerous for the environment
Xn Harmful
R22 Harmful if swallowed.
R53 May cause long-term adverse effects in the aquatic environment.
R56 Toxic to soil organisms.
R57 Toxic to bees.

Further information

For R&D use only. Not for drug, household or other uses.



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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 appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.