

SAFETY DATA SHEET



Revision date: 23-Apr-2014

Version: 2.0

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

Product Identifier

Material Name: 3-Nitro® 20

Trade Name: 3-NITRO
Chemical Family: Mixture

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Veterinary product Feed additive
Restrictions on Use: Not for human use

Details of the Supplier of the Safety Data Sheet

Zoetis Inc.
100 Campus Drive, P.O. Box 651
Florham Park, New Jersey 07932 (USA)
Rocky Mountain Poison Control Center Phone: 1-866-531-8896
Product Support/Technical Services Phone: 1-800-366-5288

Zoetis Belgium S.A.
Mercuriusstraat 20
1930 Zaventem
Belgium

Emergency telephone number:
CHEMTREC (24 hours): 1-800-424-9300
Contact E-Mail: VMIPSrecords@zoetis.com

Emergency telephone number:
International CHEMTREC (24 hours): +1-703-527-3887

2. HAZARDS IDENTIFICATION

Appearance: Brown powder

Classification of the Substance or Mixture

Acute Oral Toxicity: Category 4
Acute Toxicity - Dusts and Mists: Category 4
Acute aquatic toxicity: Category 2
Chronic aquatic toxicity: Category 2

US OSHA Specific - Classification

Physical Hazard: Combustible Dust

EU Classification:

EU Indication of danger: Xn - Harmful
N - Dangerous for the environment

EU Symbol: Xn N

EU Risk Phrases:

R20/22 - Harmful by inhalation and if swallowed.
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Label Elements

Signal Word: Warning

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2. HAZARDS IDENTIFICATION

| | |
|----------------------------------|---|
| Hazard Statements: | May form combustible dust concentrations in air H302 - Harmful if swallowed H332 - Harmful if inhaled H411 - Toxic to aquatic life with long lasting effects |
| Precautionary Statements: | P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking P261 - Avoid breathing dust/fume/gas/mist/vapors/spray P264 - Wash hands thoroughly after handling P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area P273 - Avoid release to the environment P301+ P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell P330 - Rinse mouth P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P312 - Call a POISON CENTRE/doctor/physician if you feel unwell P391 - Collect spillage P501 - Dispose of contents/container in accordance with all local and national regulations |



Other Hazards

Australian Hazard Classification (NOHSC):

Note:

No data available

Hazardous Substance. Dangerous Goods.

This document has been prepared in accordance with standards for workplace safety, which requires the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warning included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous

| Ingredient | CAS Number | EU EINECS/ELINCS List | EU Classification | GHS Classification | % |
|------------|------------|-----------------------|------------------------|--|----|
| Roxarsone | 121-19-7 | 204-453-7 | T; R23/25 N; R50/53 | Acute Tox. 3 (H301) Acute Tox. 3 (H331) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) | 20 |

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| Ingredient | CAS Number | EU EINECS/ELINCS List | EU Classification | GHS Classification | % |
|-------------------|--------------|-----------------------|-------------------|--------------------|---|
| Rice hulls | NOT ASSIGNED | Not Listed | Not Listed | Not Listed | * |
| Mineral oil | 8012-95-1 | 232-384-2 | Not Listed | Not Listed | * |
| Calcium carbonate | 471-34-1 | 207-439-9 | Not Listed | Not Listed | * |

Additional Information: Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

For the full text of the R phrases and CLP/GHS abbreviations mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Description of First Aid Measures

| | |
|----------------------|--|
| Eye Contact: | Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention immediately. |
| Skin Contact: | Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek medical attention. |
| Ingestion: | Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately. |
| Inhalation: | Remove to fresh air and keep patient at rest. Seek medical attention immediately. |

Most Important Symptoms and Effects, Both Acute and Delayed

| | |
|--|--|
| Symptoms and Effects of Exposure: | No data available |
| Medical Conditions | Breathing dust may worsen asthma symptoms. |
| Aggravated by Exposure: | |

Indication of the Immediate Medical Attention and Special Treatment Needed

| | |
|----------------------------|------------------------|
| Notes to Physician: | Treat symptomatically. |
|----------------------------|------------------------|

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Extinguish fires with CO₂, extinguishing powder, foam, or water.

Special Hazards Arising from the Substance or Mixture

| | |
|---------------------------------------|---|
| Hazardous Combustion Products: | Formation of toxic gases is possible during heating or fire. |
| Fire / Explosion Hazards: | Dust can form an explosive mixture in air. Fine particles (such as dust and mists) may fuel fires/explosions. |

Advice for Fire-Fighters

During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Avoid dust formation. Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Environmental Precautions

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Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up

| | |
|---|--|
| Measures for Cleaning / Collecting: | Avoid generating airborne dust. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. Contain the source of the spill if it is safe to do so. Collect spilled material by a method that controls dust generation. Place waste in an appropriate container for disposal. |
| Additional Consideration for Large Spills: | Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel. |

7. HANDLING AND STORAGE

Precautions for Safe Handling

Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding and bonding procedures. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Minimize dust generation and accumulation. Use with adequate ventilation. Avoid shock and friction. Do not empty into drains. When handling, use appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

Conditions for Safe Storage, Including any Incompatibilities

| | |
|-----------------------------|---|
| Storage Conditions: | Store at room temperature in properly labeled containers. Keep away from heat, sparks and flames. |
| Specific end use(s): | No data available |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Refer to available public information for specific member state Occupational Exposure Limits.

Mineral oil

| | |
|-----------------------------------|---|
| ACGIH Threshold Limit Value (TWA) | 5 mg/m ³ |
| Australia TWA | 5 mg/m ³ |
| Belgium OEL - TWA | 5 mg/m ³ |
| Bulgaria OEL - TWA | 5.0 mg/m ³ |
| Czech Republic OEL - TWA | 5 mg/m ³ |
| Denmark OEL - TWA | 1 mg/m ³ |
| Finland OEL - TWA | 5 mg/m ³ |
| Greece OEL - TWA | 5 mg/m ³ |
| Lithuania OEL - TWA | 1 mg/m ³ |
| Netherlands OEL - TWA | 5 mg/m ³ |
| Vietnam OEL - TWAs | 5 mg/m ³ |
| OSHA - Final PELS - TWAs: | 5 mg/m ³ |
| Poland OEL - TWA | 5 mg/m ³ |
| Portugal OEL - TWA | 5 mg/m ³ |
| Romania OEL - TWA | 5 mg/m ³ |
| Slovakia OEL - TWA | 5 ppm 1 mg/m ³ 5 mg/m ³ |
| Spain OEL - TWA | 5 mg/m ³ |
| Sweden OEL - TWAs | 1 mg/m ³ |

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Calcium carbonate

| | |
|--------------------|------------------------|
| Australia TWA | 10 mg/m ³ |
| Bulgaria OEL - TWA | 10.0 mg/m ³ |
| France OEL - TWA | 10 mg/m ³ |
| Latvia OEL - TWA | 6 mg/m ³ |
| Vietnam OEL - TWAs | 10 mg/m ³ |
| Poland OEL - TWA | 10 mg/m ³ |
| Portugal OEL - TWA | 10 mg/m ³ |

Exposure Controls

Engineering Controls:

Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section.

Personal Protective Equipment:

Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

Hands:

Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.

Eyes:

Wear safety glasses or goggles if eye contact is possible.

Skin:

Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.

Respiratory protection:

If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|--|--------------------|-------------------|--------------------|
| Physical State: | Powder | Color: | Brown |
| Odor: | Slight | Odor Threshold: | No data available. |
| Molecular Formula: | Mixture | Molecular Weight: | Mixture |
| Solvent Solubility: | No data available | | |
| Water Solubility: | No data available | | |
| pH: | No data available. | | |
| Melting/Freezing Point (°C): | No data available | | |
| Boiling Point (°C): | No data available. | | |
| Partition Coefficient: (Method, pH, Endpoint, Value) | | | |
| No data available | | | |
| Decomposition Temperature (°C): | No data available. | | |
| Evaporation Rate (Gram/s): | No data available | | |
| Vapor Pressure (kPa): | No data available | | |
| Vapor Density (g/ml): | No data available | | |
| Relative Density: | No data available | | |
| Viscosity: | No data available | | |
| Flammability: | | | |
| Autoignition Temperature (Solid) (°C): | No data available | | |
| Flammability (Solids): | No data available | | |
| Flash Point (Liquid) (°C): | No data available | | |
| Upper Explosive Limits (Liquid) (% by Vol.): | No data available | | |
| Lower Explosive Limits (Liquid) (% by Vol.): | No data available | | |

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10. STABILITY AND REACTIVITY

| | |
|---|---|
| Reactivity: | No data available |
| Chemical Stability: | Stable under normal conditions of use. |
| Possibility of Hazardous Reactions | |
| Oxidizing Properties: | No data available |
| Conditions to Avoid: | Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electrostatic discharge). Dust may form explosive mixture in air. |
| Incompatible Materials: | As a precautionary measure, keep away from strong oxidizers |
| Hazardous Decomposition Products: | No data available |

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

General Information: Toxicological properties of the formulation have not been fully investigated. The following information is available for the individual ingredients.

Acute Toxicity: (Species, Route, End Point, Dose)

Roxarsone

Rat Oral LD50 81 mg/kg
Mouse Oral LD50 244

Calcium carbonate

Rat Oral LD50 6450 mg/kg

Mineral oil

Eye Irritation Rabbit Moderate
Skin Irritation Rabbit Mild

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

Roxarsone

Bacterial Mutagenicity (Ames) *Salmonella* Negative
In Vitro Chromosome Aberration Chinese Hamster Ovary (CHO) cells Negative

Carcinogen Status:

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

Product Level Toxicity Data

Acute Toxicity Estimate (ATE) 405 mg/kg

Oral:

Acute Toxicity Estimate (ATE) 2.5 mg/L

Inhalation:

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12. ECOLOGICAL INFORMATION

| | |
|---------------------------------------|--|
| Environmental Overview: | Toxic to aquatic life with long lasting effects. |
| Toxicity: | No data available |
| Persistence and Degradability: | No data available |
| Bio-accumulative Potential: | No data available |
| Mobility in Soil: | No data available |

13. DISPOSAL CONSIDERATIONS

| | |
|---------------------------------|--|
| Waste Treatment Methods: | Waste of this product may qualify as a RCRA Hazardous Waste. Status should be confirmed by testing for RCRA hazardous characteristics (i.e. corrosivity, toxicity, reactivity, or ignitability). Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater. |
|---------------------------------|--|

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

This material is regulated for transportation as a hazardous material/dangerous good.

| | |
|------------------------------------|--|
| UN number: | UN 3465 |
| UN proper shipping name: | Organoarsenic compounds, solid, n.o.s. |
| Technical Shipping Name: | (3-nitro-4-hydroxy-phenylarsonic acid) |
| Transport hazard class(es): | 6.1 |
| Packing group: | III |
| Environmental Hazard(s): | Marine Pollutant |

15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Canada - WHMIS: Classifications

WHMIS hazard class:

D1b toxic materials

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

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15. REGULATORY INFORMATION



Rice hulls

| | |
|------------------------------------|------------|
| CERCLA/SARA 313 Emission reporting | Not Listed |
| California Proposition 65 | Not Listed |
| EU EINECS/ELINCS List | Not Listed |

Mineral oil

| | |
|---|------------|
| CERCLA/SARA 313 Emission reporting | Not Listed |
| California Proposition 65 | Not Listed |
| Inventory - United States TSCA - Sect. 8(b) | Present |
| Australia (AICS): | Present |
| EU EINECS/ELINCS List | 232-384-2 |

Roxarsone

| | |
|--|------------------------------|
| CERCLA/SARA 313 Emission reporting | Not Listed |
| California Proposition 65 | Not Listed |
| Inventory - United States TSCA - Sect. 8(b) | Present |
| Australia (AICS): | Present |
| REACH - Annex XVII - Restrictions on Certain Dangerous Substances: | Use restricted. See item 19. |
| EU EINECS/ELINCS List | 204-453-7 |

Calcium carbonate

| | |
|---|------------|
| CERCLA/SARA 313 Emission reporting | Not Listed |
| California Proposition 65 | Not Listed |
| Inventory - United States TSCA - Sect. 8(b) | Present |
| Australia (AICS): | Present |
| EU EINECS/ELINCS List | 207-439-9 |

16. OTHER INFORMATION

Text of R phrases and GHS Classification abbreviations mentioned in Section 3

Acute toxicity, oral-Cat.3; H301 - Toxic if swallowed

Acute toxicity, inhalation-Cat.3; H331 - Toxic if inhaled

Hazardous to the aquatic environment, acute toxicity-Cat.1; H400 - Very toxic to aquatic life

Hazardous to the aquatic environment, chronic toxicity-Cat.1; H410 - Very toxic to aquatic life with long lasting effects

T - Toxic

N - Dangerous for the environment

R23/25 - Toxic by inhalation and if swallowed.

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Data Sources:

The data contained in this MSDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

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Prepared by: Toxicology and Hazard Communication
Zoetis Global Risk Management

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End of Safety Data Sheet