

SAFETY DATA SHEET

1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

| Product Name: | Nitrolizer Dart |
|--------------------------|---|
| Registration Number: | 2022711S Fertilizers Act |
| Product Use: | Agrochemicals |
| Manufacturer /Supplier: | INTERPROVINCIAL COOPERATIVE LTD. 945 Marion St. Winnipeg, Manitoba R2J 0K7 <u>www.ipco.ca</u> |
| Effective Date: | 19/08/2019 |
| 2: HAZARD IDENTIFICATION | |

GHS classification in accordance with 29 CFR 1910.1200:

| Eye irritant | Category 2 |
|---|--|
| Skin irritant | Category 2 |
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| | |
| | |
| Skin irritant Skin sensitizer Flammable liquid Aspiration hazard | Category 2 Category 1 Category 4 Category 1 |

Pictograms:



| Signal word: | Danger! |
|--------------------------|--|
| Hazard statements: | Causes serious eye irritation. Causes skin irritation. May causes an allergic skin reaction. Combustible liquid. May be fatal if swallowed and enters airways. |
| Precautionary statement: | Keep away from heat/sparks/open flames/hot surfaces. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/eye protection/face protection. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Store in a well-ventilated place. Keep cool. Dispose of contents/container to an approved waste disposal plant. |

3: COMPOSITION AND INFORMATION ON INGREDIENTS

| COMPONENT | CASNUMBER | % (W/W) |
|---------------|-----------|---------|
| DICYANDIAMIDE | 461-58-5 | 20-50% |

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

| 4: FIRST AID MEASURES | |
|--------------------------------|---|
| If inhaled: | If breathed in, move person into fresh air. If breathing is difficult, give oxygen. If victim has stopped breathing: Administer CPR (cardio-pulmonary resuscitation). Get immediate medical advice/attention. |
| Skin contact: | In case of contact, immediate flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Seek medical advice. Wash contaminated clothing before re-use. |
| Eye contact: | Rinse immediately with plenty of water, also under eyelids for at least 15 minutes. Seek medical advice. |
| Ingestion: | Do not induce vomiting without medical advice. If victim is conscious: Rinse mouth with water. Keep at rest. Do not give anything to drink. Do not leave the victim unattended. Vomiting may occur spontaneously. Risk of product entering the lungs on vomiting after ingestion. Lay victim on side. Seek medical advice. |
| Risk: | Skin contact may aggravate exiting skin disease. Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. |
| Notes to Physician: All treatm | pents should be based on observed signs of distress in the nationt. Consideration should be |

Notes to Physician: All treatments should be based on observed signs of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. There is no specific antidote available.

| 5: FIRE-FIGHTING MEASURES | |
|---|--|
| Flash point: | >75 C (> 167 F). Flammability Class: Combustible liquid. Method Used: Closed Cup. |
| Suitable extinguishing media: | Extinguishing media – small fires. |
| | Dry chemical |
| | Carbon dioxide (CO2) |
| | Extinguishing media – large fires |
| | Foam |
| | Water spray |
| Unsuitable extinguishing media: | High volume water jet (Frothing possible) |
| Specific hazards during firefighting: | Under fire conditions: Will burn. Container may rupture on heating. Highly toxic gases are released. Hazardous decomposition products formed under fire conditions. On combustion or on thermal decomposition (pyrolysis), releases: Nitrogen oxides (NOx) |
| | Sulfur oxides |
| | Carbon oxides |
| | Oxides of phosphorus |
| | Ammonia |
| | Hydrogen sulfide |
| | Methanethiol |
| | Cyanides |
| | Dimethyl disulfide |
| Special protective equipment for firefighters: | Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. |
| 6: ACCIDENTAL RELEASE MEA | ASURES |
| Personal precautions: | Use personal protective equipment. For further information refer to section 8 |

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In case of emergency call CANUTEC at 613-996-6666 Interprovincial Cooperative Ltd.; Information Phone: 204-233-3461

Effective Date: 19/08/2019

| control parameters:Dimethyl sulfoxideTWA250 ppmWEBEngineering Controls:Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniqu be used to effectively minimize exposures: Effective exhaust ventilation systeRespiratory Protection:When respirators are required, select NIOSH/MSHA approved equipment ba actual or potential airborne concentrations and in accordance with the appropregulatory standards and/or industrial recommendations.Hand protection:Recommended preventive skin protection: Gloves. Please observe the instru- regarding permeability and breakthrough time which are provided by the sup the gloves. Also take into account the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.Eye protection:Eye and face protection requirements will vary dependent upon work environ conditions and material handling practices. Appropriate ANSI Z87 approved should be selected for the particular use intended for this material. Eye conta should be prevented through the use of: Safety glasses with side-shields or f shield.Skin and body protection:Recommended preventive skin protection. Footwear protection against cherr Impervious clothing. Choose body protection according to the amount and concentration of the dangerous substances at the work place. | | Exposure control | s/personal protection. | " | |
|--|----------------------------|---|---|--|--|
| Dam up with sain or inert earth (do not use combustible materials). Solar disorbent material. Shovel or sweep up. Keep in suitable, closed containers disposal. Never return spills in original containers for re-use. Clean contaminis surface thoroughly. Flush with plenty of water. Recover the cleaning water f disposal. Decontaminate tools, equipment, and personal protectequipment in a segregated area. Dispose of in accordance with local regulation of variance to the sequence disposal. Decontaminate tools, equipment, and personal protectequipment in a segregated area. Dispose of in accordance with local regulation of variants. Do not use sparking tools. Ensure all equipment is electrically grounded before the enployees. Avoid contact with skin and eyes. Avoid inhalation of variants. Do not ingest. Personal hygiene is an important work practice exposure measure and the following general measures should be taken when working handling this material. 1) Do not store, use, and/or consume foods, beverage tobacco products, or cosmetics in areas where this material is stored. 2) Wa hands and face carefully before eating, drinking, using tobacco, applying corr using the toilet. 3) Wash exposed skin promptly to remove accidental splic container tightly closed in a dry and well-ventilated place. Keep away from incomparementates to be indicated by the manufacturer. Do not mix with incompatible materials (see list, section 10). Storage: Component Value type Value Basi Bigneting Controls: Component Value type Value Basi Dimethyl TWA 250 ppm WEE Storage temperature: < 113 F (<45 C) | Environmental precautions: | measures to avo | id accidental discharg | e of products into drains | - |
| 7: HANDLING AND STORAGE Handling: Do not use sparking tools. Ensure all equipment is electrically grounded bef beginning transfer operations. The product must only be handled by specific trained employees. Avoid contact with skin and eyes. Avoid inhalation of var mist. Do not ingest. Personal hygiene is an important work practice exposure measure and the following general measures should be taken when working handling this material: 1) Do not store, use, and/or consume foods, beverag tobacco products, or cosmetics in areas where this material is stored. 2) Wa hands and face carefully before eating, drinking, using tobacco, applying co or using the toilet. 3) Wash exposed skin promptly to remove accidental spla contact with material. Storage: Keep container tightly closed in a dry and well-ventilated place. Keep away 1 open flames, hot surfaces, and sources of ignition. Keep away from incompr materials to be indicated by the manufacturer. Do not mix with incompatible materials (see list, section 10). Storage temperature: < 113 F (< 45 C) | Methods for containment: | Dam up with san absorbent materi disposal. Never r surface thorough subsequent dispo | or inert earth (do not ial. Shovel or sweep u return spills in original ily. Flush with plenty o osal. Decontaminate to | use combustible materia p. Keep in suitable, close containers for re-use. Cl f water. Recover the clea ools, equipment, and per | ls). Soak up with inert ed containers for ean contaminated aning water for sonal protective |
| beginning transfer operations. The product must only be handled by specific trained employees. Avoid contact with skin avok practice exposur measure and the following general measures should be taken when working handling this material: 1) Do not store, use, and/or consume foods, beverag tobacco products, or cosmetics in areas where this material is stored. 2) Wa hands and face carefully before eating, drinking, using tobacco, applying co or using the toilet. 3) Wash exposed skin promptly to remove accidental splic contact with material.Storage:Keep container tightly closed in a dry and well-ventilated place. Keep away from incomp materials to be indicated by the manufacturer. Do not mix with incompatible materials (see list, section 10). Storage temperature: < 113 F (< 45 C) | 7: HANDLING AND STORAGE | | | | |
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| 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION Ingredients with workplace control parameters: Component Value type Value Basi Dimethyl TWA 250 ppm WEB Engineering Controls: Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniqu be used to effectively minimize exposures: Effective exhaust ventilation syste Respiratory Protection: When respirators are required, select NIOSH/MSHA approved equipment ba actual or potential airborne concentrations and in accordance with the approp regulatory standards and/or industrial recommendations. Hand protection: Recommended preventive skin protection: Gloves. Please observe the instru- regarding permeability and breakthrough time which are provided by the sup the gloves. Also take into account the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Eye protection: Eye and face protection requirements will vary dependent upon work environ conditions and material handling practices. Appropriate ANSI Z87 approved should be selected for the particular use intended for this material. Eye conta should be prevented through the use of: Safety glasses with side-shields or f shield. Skin and body protection: Recommended preventive skin protection. Footwear protection against cherr Impervious clothing. Choose body protection according to the amount and concentration of the dangerous substances at the work place. | Storage: | open flames, hot materials to be in materials (see lis | surfaces, and source dicated by the manufa t, section 10). | s of ignition. Keep away a acturer. Do not mix with i | from incompatible |
| Ingredients with workplace control parameters:Component United Value typeValue ValueBasi Basi DimethylEngineering Controls:Dimethyl sulfoxideTWA250 ppmWEB SulfoxideEngineering Controls:Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control technique be used to effectively minimize exposures: Effective exhaust ventilation systeRespiratory Protection:When respirators are required, select NIOSH/MSHA approved equipment ba actual or potential airborne concentrations and in accordance with the appropregulatory standards and/or industrial recommendations.Hand protection:Recommended preventive skin protection: Gloves. Please observe the instru- regarding permeability and breakthrough time which are provided by the sup the gloves. Also take into account the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.Eye protection:Eye and face protection requirements will vary dependent upon work environ conditions and material handling practices. Appropriate ANSI Z87 approved should be selected for the particular use intended for this material. Eye conta should be prevented through the use of: Safety glasses with side-shields or f shield.Skin and body protection:Recommended preventive skin protection. Footwear protection against chem Impervious clothing. Choose body protection according to the amount and concentration of the dangerous substances at the work place. | 8: EXPOSURE CONTROLS AN | | | | |
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| Impervious clothing. Choose body protection according to the amount and concentration of the dangerous substances at the work place. | Eye protection: | conditions and ma should be selecte should be prevent | aterial handling practic d for the particular use | es. Appropriate ANSI Z8 intended for this materi | 37 approved quipment al. Eye contact |
| | Skin and body protection: | Impervious clothir | ng. Choose body prote | ection according to the ar | - |
| Hygiene measures: Personal hygiene is an important work practice exposure control measure ar | Hygiene measures: | | - | • | I measure and the |
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SAFETY DATA SHEET

following general measures should be taken when working with or handling this material: 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet. 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

Protective measures: Ensure that eyewash stations and safety showers are close to the workstation location. Emergency equipment immediately accessible, with instructions for use. The protective equipment must be selected in accordance with current local standards and in cooperation with the supplier of the protective equipment. Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.

9: PHYSICAL AND CHEMICAL PROPERTIES

| Appearance: | Physical state: Liquid. Color: Blue. |
|--|--|
| Odor: | Pungent |
| Odor threshold: | No data available |
| pH: | 9.72 |
| Melting point/range: | < -58 F (< 50 C) |
| Flash point: | >75 C (> 167 F). Closed cup. Flammability class: Combustible liquid. |
| Evaporation rate (butyl acetate = 1): | No data available |
| Flammability (solid, gas): | No data available |
| Flammability (liquids): | No data available |
| Flammability/Explosive limit: | No data available |
| Autoignition temperature: | No data available |
| Vapor pressure: | No data available |
| Vapor density: | No data available |
| Density: | 1.10 – 1.20 g/cm3 (20 C (68 F)) |
| Solubility in water: | Miscible |
| Coefficient of n-Octanol/water distribution: | No data available |
| Thermal decomposition: | No data available |
| Viscosity: | No data available |
| Explosive properties: | No data available |
| Oxidizing properties | No data available |
| Other: | This product does not sustain combustion. |
| | |

10: STABILITY AND REACTIVITY

| Chemical stability: | Stable under recommended storage conditions. |
|--|--|
| Possibility of hazardous reactions: | Hazardous polymerization does not occur. |
| Conditions to avoid: | Keep away from heat and sources of ignition. |
| Incompatible Materials: | Strong bases, Strong oxidizing agents, Strong reducing agents, Perchloric acid, Mineral acids, Organic acids, Metals in presence of moisture, Zinc, Mild steel, Carbon steel, Halogenated compounds. |
| Hazardous decomposition products: | Carbon oxides, Sulfur oxides, Oxides of phosphorus, Nitrogen oxides (NOx), |
| n case of emergency call CA | NUTEC at 613-996-6666 |

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| | Ammonia, Formaldehyde, Phosphine. |
|----------------------------|---|
| 1: TOXICOLOGICAL INFOR | |
| Acute toxicity: | Acute oral toxicity: |
| | Dimethyl sulfoxide: |
| | LD50: 21,400 mg/kg - Rat, male and female. Method: OECD Test Guideline 401. |
| | Not classified as hazardous for acute toxicity according to GHS. Gavage. Published data. |
| | LD50: 28,300 mg/kg - Rat, male and female. Method: OECD Test Guideline 401. |
| | Dicyandiamide: Not classified as harmful if swallowed. Gavage. Published data. |
| | LD50 Oral: >10,000 mg/kg - Rat, male and female. Unpublished reports. |
| | LD50 Oral: > 7,000 mg/kg - Rat, male and female. Unpublished reports. |
| | Acute inhalation toxicity: |
| | Dimethyl sulfoxide: |
| | LC0 - 5 h (vapor): > 5.33 mg/l - Rat, male and female. Method: OECD Test Guideline 403. Not classified as hazardous for acute toxicity according to GHS. Aerosol. Unpublished reports. No mortality observed at this concentration. No adverse effect has been observed in acute toxicity tests. |
| | <u>Dicyandiamide:</u> |
| | LC0 - 4 h: > 0.259 mg/l. Maximum dose technically administrable. No mortality observed at this concentration. Not classified as harmful by inhalation. Unpublished reports. |
| | Acute toxicity (other routes of administration): |
| | Dimethyl sulfoxide: |
| | LD50: 5,360 mg/kg - Rat, for males and females. Intravenous. Published data. |
| Skin corrosion/irritation: | Dimethyl sulfoxide: |
| | Rabbit. Not classified as irritating to skin. Method: OECD Test Guideline 404. Semi- occlusive. Unpublished reports. May cause slightly temporary irritation. |
| | <u>Dicyandiamide:</u> |
| | No skin irritation. Unpublished reports. |
| Respiratory or skin | Dimethyl sulfoxide: |
| sensitization: | Maximization Test (GPMT) - Guinea pig. Does not cause skin sensitization. Method: OECD Test Guideline 406. Published data. Local lymph node assay – Mouse. Does not cause skin sensitization. Method: OECD Test Guideline 429. Published data. Buehler test - Guinea pig. Does not cause skin sensitization. Published data. Occlusive. Repeated insult patch test – Humans. Does not cause skin sensitization. Published data. Occlusive. <u>Dicyandiamide:</u> |
| | Did not cause sensitization on laboratory animals. Published data. Unpublished reports. |
| Mutagenicity: | Genotoxicity in vitro: |
| | Dimethyl sulfoxide: |
| | Ames test with and without metabolic activation negative. Method: OECD Test Guideline 471. Published data. Chromosome aberration test in vitro. Strain: Chinese hamster ovary cells with and without metabolic activation negative. Method: OECD Test Guideline 473.Published data. SCE test. Strain: Chinese hamster ovary cells with and without metabolic activation negative. Method: OECD Test Guideline 479. Published data. |

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| | <u>Dicyandiamide:</u> |
|-------------------------------|--|
| | In vitro tests did not show mutagenic effects. Unpublished reports. |
| | Genotoxicity in vitro: |
| | Dimethyl sulfoxide: |
| | Expert judgment. The product is not considered to be carcinogenic. |
| | Dicyandiamide: |
| | No carcinogenic effects have been observed. Unpublished reports. Published reports. |
| Carcinogenicity: | Dimethyl sulfoxide: |
| | Expert judgment. The product is not considered to be carcinogenic. |
| | <u>Dicyandiamide:</u> |
| | No carcinogenic effects have been observed. Unpublished reports. Published data. This product does not contain any ingredient designated as probable or suspected human carcinogens by: NTP, IARC, OSHA, ACGIH. |
| Toxicity for reproduction and | Toxicity for reproduction/fertility: |
| development: | Dimethyl sulfoxide: |
| | Reproduction/developmental toxicity screening test - Rat, male and female. Oral. NOEL parent >= 1,000 mg/kg. NOEL F1: >= 1,000 mg/kg. Method: OECD Test Guideline 421. Gavage. Unpublished reports. No impairment of fertility has been observed. No effect observed on development. |
| | <u>Dicyandiamide:</u> |
| | No effect observed on development. Dicyandiamide No effect observed in male or female reproductive system in repeated dose tox studies. No impairment of fertility has been observed. No effect observed on development. Rat, male. Oral exposure Method: OECD Test Guideline 416 in food. Rat, female. Oral exposure. Method: OECD Test Guideline 416 in food. |
| | Developmental Toxicity/Teratogenicity: |
| | Dimethyl sulfoxide: |
| | Rabbit, male and female. Application route: Oral. NOAEL teratogenicity: 1,000 mg/kg. Method: OECD Test Guideline 414. Gavage. Unpublished reports. No teratogenic effects have been observed. No effect observed on development. Rabbit, male and female. Application Route: Oral. NOEL maternal: 300 mg/kg. Method: OECD Test Guideline 414. Gavage. Unpublished reports. No teratogenic effects have been observed. No effect observed on development. Rat, male and female. Application route: Oral. NOAEL teratogenicity: 1,000 mg/kg. Method: OECD Test Guideline 414. Gavage. Unpublished reports. No teratogenic effects have been observed. No effect observed on development. Rat, male and female. Application route: Oral. NOAEL teratogenicity: 1,000 mg/kg. Method: OECD Test Guideline 414. Gavage. Unpublished reports. No teratogenic effects have been observed on development. Rat, male and female. Application route: Oral. NOAEL teratogenicity: 1,000 mg/kg. Method: OECD Test Guideline 414. Gavage. Unpublished reports. No teratogenic effects have been observed. No effect observed on development. Rat, male and female. Application route: Oral. NOAEL teratogenic effects have been observed. No effect observed on development. Rat, male and female. Application route: Oral. NOEL maternal: 1,000 mg/kg. Method OECD Test Guideline 414. Gavage. Unpublished reports. No teratogenic effects have been observed. No effect observed on development. |
| | <u>Dicyandiamide:</u> |
| | Rat, female. Application route: Oral exposure. NOAEL teratogenicity: >2,000 mg/kg. NOAEL maternal: 1,000 mg/kg. Effects on development were observed. |
| | STOT-Single exposure: |
| | Dimethyl sulfoxide: |
| | Toxicology assessment. The substance or mixture is not classified as specific target organ toxicant, single exposure. |
| | Dicyandiamide: |
| | |

Toxicological assessment. The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-Repeated exposure:

Dimethyl sulfoxide:

Toxicology assessment. The substance or mixture is not classified as specific target organ toxicant, single exposure.

Dicyandiamide:

Toxicological assessment. The substance or mixture is not classified as specific target organ toxicant, single exposure.

Dimethyl sulfoxide:

| | Oral 2 y - Dog, male and female. NOAEL: 1100 mg/kg. Target organs: Eyes. Method: OECD Test Guideline 452. Gavage, Published data. Chronic exposure. Ocular toxicity effect. The significance of these findings for humans is not certain. Oral 18 months - Rat, male and female. NOAEL: 3300 mg/kg. Method: OECD Test Guideline 452. Gavage, Published data. Chronic exposure. Not considered to cause serious damage to health on repeated exposure. Oral 18 months - Monkey, male and female. NOAEL: 2970 mg/kg. Method: OECD Test Guideline 452 Gavage, Published data. Chronic exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Inhalation 90 days - Rat, male and female. NOAEL: 2,783 mg/kg. Method: OECD Test Guideline 413. Aerosol, Unpublished reports. Sub chronic toxicity. Not considered to cause serious damage to health on repeated exposure. Dermal 18 months - Monkey, male and female. NOAEL: >=8910 mg/kg. Method: OECD Test Guideline 452. Published data, Chronic exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Not considered to cause serious damage to health on repeated exposure. Dermal 90 days - Humans, male. NOAEL: 1000 mg/kg. Method: OECD Test Guideline 452. Published data. Sub chronic toxicity. No adv |
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| | <u>Dicyandiamide:</u> Oral exposure 28 d - Rat, for males and females. NOAEL: 2000 ppm in food. Unpublished reports. Oral exposure 90 d - Rat, for males and females. NOAEL: > 24000 ppm in food. Unpublished reports. |
| Neurological effects: | Unpublished reports, Rat, no neurotoxic effects observed. |
| Aspiration toxicity: | No data available |
| 12: ECOLOGICAL INFORMA | |
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| Ecotoxicity: | Acute toxicity to fish: |
| | <u>Dimethyl sulfoxide</u> : LC50 - 96 h: > 25,000 mg/l - Danio rerio (zebra fish). Static test, Analytical monitoring: yes. Method: OECD Test Guideline 203. Fresh water. Unpublished reports. |
| | Dicyandiamide: |
| | |
| | LC50 - 96 h: >1,000 mg/l - Lepomis macrochirus (Bluegill sunfish). Unpublished reports. Not harmful to fish (LC50 > 100 mg/L). |
| | LC50 - 96 h: >1,000 mg/l - Lepomis macrochirus (Bluegill sunfish). Unpublished |
| | LC50 - 96 h: >1,000 mg/l - Lepomis macrochirus (Bluegill sunfish). Unpublished reports. Not harmful to fish (LC50 > 100 mg/L). |
| | LC50 - 96 h: >1,000 mg/l - Lepomis macrochirus (Bluegill sunfish). Unpublished reports. Not harmful to fish (LC50 > 100 mg/L). Acute toxicity to daphnia and other aquatic invertebrates: |
| | LC50 - 96 h: >1,000 mg/l - Lepomis macrochirus (Bluegill sunfish). Unpublished reports. Not harmful to fish (LC50 > 100 mg/L). Acute toxicity to daphnia and other aquatic invertebrates: <u>Dimethyl sulfoxide</u> : EC50 - 48 h: 24,600 mg/l - Daphnia magna (Water flea). Static test, Analytical |
| | LC50 - 96 h: >1,000 mg/l - Lepomis macrochirus (Bluegill sunfish). Unpublished reports. Not harmful to fish (LC50 > 100 mg/L). Acute toxicity to daphnia and other aquatic invertebrates: <u>Dimethyl sulfoxide</u> : EC50 - 48 h: 24,600 mg/l - Daphnia magna (Water flea). Static test, Analytical monitoring: yes. Method: OECD Test Guideline 202. Fresh water, published data. |

| | Toxicity to aquatic plans: |
|-------------------------------|--|
| | Dimethyl sulfoxide: |
| | EC50 - 72 h: 17,000 mg/l - Pseudokirchneriella subcapitata (green algae). Static test, analytical monitoring: yes. Method: OECD Test Guideline 201. Fresh water. Unpublished reports. Not harmful to algae (EC50 > 100 mg/l). |
| | Dicyandiamide: |
| | EC50 - 96 h: 2,040 mg/l - Pseudokirchneriella subcapitata (green algae). Unpublished reports. |
| | Toxicity to microorganisms: |
| | Dimethyl sulfoxide: |
| | EC50 - 30 min: 10 - 100 mg/l activated sludge. No data available, analytical monitoring: no. Method: ISO 8192. Fresh water, Unpublished reports. |
| | Chronic toxicity to fish: |
| | <u>Dicyandiamide:</u> |
| | LC50: >100 mg/l - 14 d - Oryzias latipes (Orange-red killfish). Unpublished reports. |
| Terrestrial Compartment: | Toxicity to soil dwelling organisms: |
| | <u>Dicyandiamide:</u> |
| | NOEC: > 1,000 mg/kg - 14 d - Eisenia fetida (earthworms). Unpublished reports. NOEC: > 100 mg/kg - 28 d - soil micro-organisms. |
| | Toxicity to above ground organisms: |
| | Dimethyl sulfoxide: |
| | LD50: 100 mg/kg - 18 h - Agelaius phoeniceus (red-wing blackbird). Endpoint: mortality. Published data. |
| | Dicyandiamide: |
| | LD50: > 2,000 mg/kg - Anas platyrhynchos (Mallard duck). Gavage, Unpublished reports. LC50: > 5,000 mg/kg - 5 d - Colinus virginianus (Bobwhite quail) In food, Unpublished reports. LC50: >5,000 mg/kg - 5 d - Anas platyrhynchose (Mallard duck). In food, Unpublished reports. |
| Ecotoxicity assessment: | Acute aquatic toxicity: |
| | Dimethyl sulfoxide: |
| | Not harmful to aquatic life (LC/EC50 > 100 mg/l). |
| | Dicyandiamide: |
| | This product has no known ecotoxicological effects. Chronic aquatic toxicity. |
| | Dimethyl sulfoxide: |
| | Not classified due to data which are conclusive through insufficient for classification. |
| Persistence and Degradability | Biodegradability: |
| Biodegradability: | Dimethyl sulfoxide: |
| | Ready biodegradability study: Method: according to a standardized method. 99% - 28 days. The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability. Dissolved organic carbon (DOC). Conc. in standard unit mg/l: 162 mg/l. The 10 day time window criterion is fulfilled. Unpublished reports. |
| | Simulation study. 90.4% - 32 days. Theoretical oxygen demand Inoculum: activated sludge. Conc. in standard unit mg/l: 65 mg/l. Unpublished reports. |
| | Dicyandiamide: |
| | Ultimate aerobic biodegradability. Method: OECD Test Guideline 301. 0% - 28 d Not readily biodegradable. Unpublished reports. |
| | Stability in water: |
| In case of emergency call CAN | |

SAFETY DATA SHEET

| | Dimethyl sulfoxide: |
|-------------------------------------|---|
| | DT50: Half-life value: 0.12 - 1.2 h (86 F (30 C)). pH: 7.0. Published data. |
| | <u>Dicyandiamide</u> : Half-life value: 25 h (915.80 F (49.1 C)). pH: 4.0. Unpublished reports. pH: 7.0. Minimal. Unpublished reports. pH: 9.0. Minimal. Unpublished reports. |
| | Degradability assessment: |
| | Dimethyl sulfoxide: |
| | The product is considered to be rapidly degradable in the environment. |
| Bioaccumulative Potential: | Partition coefficient: n-octanol/water: |
| | Dimethyl sulfoxide: |
| | Not potentially bioaccumulable. |
| | Dicyandiamide: |
| | Not potentially bioaccumulable. Unpublished reports. |
| Mobility in Soil: | Adsorption potential: |
| | Dimethyl sulfoxide: |
| | Adsorption/Soil. Koc: 4.41. Log Koc: 0.64. Unpublished reports. Structure-activity relationship (SAR). |
| | Dicyandiamide: |
| | By analogy. Not expected to adsorb on soil. |
| | Known distribution to environmental compartments: |
| | <u>Dimethyl sulfoxide:</u> |
| | Ultimate destination of the product: Solid. Water. Predicted distribution to environmental compartments. Unpublished reports. |
| Results of PBT and vPvB assessment: | Dimethyl sulfoxide: |
| | This substance is not considered to be persistent, bioaccumulating, and toxic (PBT) This substance is considered to be very persistent and very bioaccumulating (vPvB |
| Other adverse effects: | Environmental assessment: |
| | <u>Dicyandiamide:</u> |
| | Not classified as Dangerous for the Environment, according to EC criteria. |
| 3: DISPOSAL CONSIDERAT | IONS |
| Product/Container: | Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate, o otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material. Waste Code EPA: Hazardous waste – NO. Rinse with an appropriate solvent. Dispose of contents/container in accordance with local regulations. |
| 14: TRANSPORT INFORMATI | |
| General: | DOT: Not regulated. TDG: Not regulated. IMDG Not regulated. IATA No regulated. Note: The above regulatory prescriptions are those valid on the date of publication of |

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15: REGULATORY INFORMATION

| 15: REGULATORT INFORMATION | | |
|--|---|--|
| United States TSCA Inventory: | YES (positive listing) On TSCA inventory. | |
| Canadian Domestic Substances List (DSL): Australia Inventory of Chemical Substances (AICS): | YES (positive listing) All components of this product are on the Canadian DSL. YES (positive listing). On the inventory, or in compliance with the inventory. | |
| Japan. CSCL – Inventory of Existing and New Chemical Substances: | N (Negative listing). Not in compliance with the inventory. | |
| Korea. Korean Existing Chemicals Inventory (KECI): | N (Negative listing). Not in compliance with the inventory. | |
| China. Inventory of Existing Chemical Substances in China (IECSC): | N (Negative listing) Not in compliance with the inventory. | |
| 16: OTHER INFORMATION | | |
| NFPA Classification: | Health: 2 moderate | |
| | Flammability: 1 slight | |
| | Instability or Reactivity: 0 minimal | |
| HMIS Classification: | Health: 2 moderate | |
| | Flammability: 1 slight | |
| | Reactivity: 0 minimal | |
| Key or legend to abbreviations | TWA 8 hr time-weighted average | |
| and acronyms used in the | ACGIH American Conference of Governmental Industrial Hygienists | |
| safety data sheet: | OSHA Occupational Safety and Health Administration | |
| | WHMIS Workplace Hazardous Materials Information System | |
| | NTP National Toxicology Program | |
| | IARC International Agency for Research on Cancer | |
| | NIOSH National Institute for Occupational Safety and Health | |
| | NFPA National Fire Protection Association | |
| | HMIS Hazardous Materials Identification System (Paint & Coating) | |
| Revision Date: | 28/01/2022 (Reason: CFIA Registration) | |
| Notice: | The enclosed information is supplied as a customer service and is provided in good | |

The enclosed information is supplied as a customer service and is provided in good faith. Although it has been based on data drawn from sources deemed to be reliable, Interprovincial Cooperative Limited cannot guarantee its accuracy and assumes no responsibility for conditions resulting from its use.