



# RESERVOIR

Date: January 3rd, 2017

## 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name RESERVOIR

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Uses of the Substance/Mixture Specific use(s): Agrochemicals

### 1.3 Details of the supplier of the safety data sheet

Company Ametech LLC  
120 Stryker Lane Unite 202A/B  
Hillsborough, NJ 08844  
Telephone number: (908) 829-3813

### 1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT:  
CHEMTREC (800-424-9300 within the United States or 703-527-3887 for international collect calls).

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)

Serious eye damage, Category 1  
Reproductive toxicity, Category 2  
Skin sensitizer, Category 1  
Flammable liquid, Category 4

H318: Causes serious eye damage  
H361: Suspected of damaging fertility or the unborn child  
H317: May cause an allergic skin reaction  
H227: Combustible liquid

### 2.2 Label Elements

HCS 2012 (29 CFR 1910.1200)

Pictogram



Signal Word

Danger



Hazard Statements:

H318	Causes serious eye damage.
H361	Suspected of damaging fertility or the unborn child.
H317	May cause an allergic skin reaction.
H227	Combustible liquid.

Precautionary Statements

Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood
P280	Wear eye protection/face protection.
P281	Use personal protective equipment as required.

Response

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediate call a POISON CENTER or doctor/physician.

Storage

P405	Store locked up
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Disposal

P501	Dispose of contents/container to an approved waste disposal plant.
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**2.3 Other hazards which do not result in classification**

Repeated or prolonged contact with skin may cause dermatitis, garlic-like odor of the breath

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substance**

Not applicable, this product is a mixture.

**3.2 Mixture**

Synonyms	Dicyandiamide blend
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*Hazardous Ingredients and Impurities*

Component	CAS Reg. Number	% Wt/Wt
PHOSPHOROTHIOIC TRIAMIDE, N-BUTYL-	94317-64-3	0 – 5
DIMETHYL SULFOXIDE	67-68-5	30 – 50

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

#### 4. FIRST AID MEASURES

##### 4.1 Description of 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.

##### 4.2 Most important symptoms and effects, both acute and delayed

Risk	Skin contact may aggravate existing skin disease Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis.
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##### 4.3 Indication of any immediate medical attention and special treatment needed

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.
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#### 5. FIREFIGHTING MEASURES

Flash Point:  
>75 C (> 167 F).  
Flammability Class: Will burn.  
Method Used:  
Closed Cup

##### 5.1 Extinguishing Media

Suitable extinguishing media	Extinguishing media – small fires Dry chemical Carbon dioxide (CO <sub>2</sub> )
	Extinguishing media – large fires Foam



Unsuitable extinguishing media  
Water spray  
High volume water jet  
(Frothing possible)

**5.2 Special hazards arising from the substance of mixture**

Specific hazards during fire fighting  
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 (NO<sub>x</sub>), Sulfur oxides, Carbon oxides, Oxides of phosphorus, Ammonia, Hydrogen sulfide, Methanethiol, Cyanides, Dimethyl disulfide

**5.3 Advice for firefighters**

Special protective equipment for firefighters  
Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions, protective equipment and emergency procedures  
Use personal protective equipment  
For further information refer to section 8 "Exposure controls/personal protection."

**6.2 Environmental precautions**

Environmental precautions  
Do not flush into surface water or sanitary sewer system.  
Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

**6.3 Methods and materials for containment and cleaning up**

Prohibition  
Use only non-sparking tools.

Methods for containment  
Stop leak if safe to do so.  
Dam up with sand or inert earth (do not use combustible materials).

Recovery  
Soak up with inert absorbent material.  
Shovel or sweep up.  
Keep in suitable, closed containers for disposal.  
Never return spills in original containers for re-use.

Decontamination/cleaning  
Clean contaminated surface thoroughly.  
Flush with plenty of water.  
Recover the cleaning water for subsequent disposal.  
Decontaminate tools, equipment, and personal protective equipment in a segregated area.

Disposal  
Dispose of in accordance with local regulations.



**6.4 Reference to other sections**

Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

**7. HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

Technical measures

Do not use sparking tools.

Ensure all equipment is electrically grounded before beginning transfer operations.

Advice on safe handling on usage

The product must only be handled by specifically trained employees.

Avoid contact with skin and eyes.

Avoid inhalation of vapor or mist.

Hygiene measures

Do not ingest.

Personal hygiene is an important work practice exposure control measure and the 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.

**7.2 Conditions for safe storage, including any incompatibilities**

*Storage conditions*

Recommended

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

To be avoided

Keep away from open flames, hot surfaces, and sources of ignition.

Keep away from incompatible materials to be indicated by the manufacturer.

Incompatible products

Do not mix with incompatible materials (see list, section 10).

*Storage stability*

Storage temperature

< 113 F (< 45 C)

**7.3 Specific end use(s)**

No data available.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

*Introductory Remarks:*

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13:



Disposal Considerations. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

**8.1 Control parameters**

Ingredients with workplace control parameters

Ingredients	Value Type	Value	Basis
Dimethyl sulfoxide	TWA	250 ppm	WEEL
Triethyl phosphate	TWA	7.45 mg/m <sup>3</sup>	WEEL

**8.2 Exposure controls**

*Control measures*

Engineering measures

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize exposures:

Effective exhaust ventilation system

*Personal protective equipment*

Respiratory protection

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Hand protection

Recommended preventive skin protection:

Gloves

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of 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 environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Eye contact should be prevented through the use of:

Safety glasses with side-shields

Face-shield

Skin and body protection

Recommended preventive skin protection

Footwear protection against chemicals

Impervious clothing

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

Hygiene measures

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:

- 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.



Protective measures

3) Wash exposed skin promptly to remove accidental splashes or contact with material.

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**

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

**9.1 Information on basic physical and chemical properties**

Appearance	Physical state: Liquid
	Color: Blue
Odor	Pungent
Odor Threshold	No data available
pH	No data available
Melting point/range	< -58 F (< 50 C)
Flash point	>75 C (> 167 F). Closed cup
	Flammability class: Will burn
Evaporation rate (butylacetate = 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/cm <sup>3</sup> (20 C (68 F))
Solubility	Water Solubility: Miscible
Partition coefficient: n-octanol/water	No data available
Thermal decomposition	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

**9.2 Other Information**

Product does not sustain combustion.

**10. STABILITY AND REACTIVITY**



**10.1 Reactivity**

No data available

**10.2 Chemical stability**

Chemical stability

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Polymerization

Hazardous polymerization does not occur.

**10.4 Conditions to avoid**

Conditions to avoid

Keep away from heat and sources of ignition.

**10.5 Incompatible materials**

Materials to avoid

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

**10.6 Hazardous decomposition products**

Decomposition products

Carbon oxides, Sulfur oxides, Oxides of phosphorus, Nitrogen oxides (NO<sub>x</sub>), Ammonia, Formaldehyde, Dimethyl disulfide, Phosphine

**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

*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

Gavage

Published data

Dicyandiamide

Not classified as harmful if swallowed.

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. 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
Dicyandiamide	
Acute toxicity (other routes of administration)	
Dimethyl sulfoxide	LD50: 5,360 mg/kg - Rat, for males and females Intravenous Published data
<i>Skin corrosion/irritation</i>	
Skin irritation	
Dimethyl sulfoxide	Rabbit Not classified as irritating to skin Method: OECD Test Guideline 404 Semi-occlusive Unpublished reports May cause slightly temporary irritation No skin irritation Unpublished reports
Dicyandiamide	
<i>Respiratory or skin sensitization</i>	
Sensitization	
Dimethyl sulfoxide	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
Dicyandiamide	Did not cause sensitization on laboratory animals Published data Unpublished reports
<b>Mutagenicity</b>	
<i>Genotoxicity in vitro</i>	



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  
In vitro tests did not show mutagenic effects  
Unpublished reports

Dicyandiamide

*Genotoxicity in vitro*

Dimethyl sulfoxide

Expert judgment  
The product is not considered to be carcinogenic  
No carcinogenic effects have been observed  
Unpublished reports  
Published reports

Dicyandiamide

**Carcinogenicity**

*Carcinogenicity*

Dimethyl sulfoxide

Expert judgment  
The product is not considered to be carcinogenic.  
No carcinogenic effects have been observed  
Unpublished reports  
Published data

Dicyandiamide

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

- NTP
- IARC
- OSHA
- ACGIH

**Toxicity for reproduction and development**

*Toxicity for reproduction/fertility*

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

Dicyandiamide

No effect observed in male or female reproductive system in repeated dose tox studies. No impairment of fertility has been observed. No



Developmental Toxicity/Teratogenicity  
Dimethyl sulfoxide

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

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  
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  
Rat, female

Dicyandiamide



	Application route: Oral exposure NOAEL teratogenicity: >2,000 mg/kg NOAEL maternal: 1,000 mg/kg Effects on development were observed
STOT 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, repeated exposure.
Dicyandiamide	Toxicology Assessment The substance or mixture is not classified as specific target organ toxicant, repeated 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 effects 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
	Inhalation 90 days - Rat, male and female NOAEL: 2,783 mg/kg Method: OECD Test Guideline 413 Aerosol, Unpublished reports Subchronic 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

Dermal 90 days - Humans, male  
NOAEL: 1000 mg/kg  
Method: OECD Test Guideline 452  
Published data  
Subchronic toxicity  
No adverse effect has been observed in toxicity tests by repeated administration

Dicyandiamide

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**

*Neurological effects*

Dimethyl sulfoxide

Unpublished reports, Rat, no neurotoxic effects observed.

**Aspiration toxicity**

Aspiration toxicity

No data available

**12. ECOLOGICAL INFORMATION**

**12.1 Ecotoxicity**

**Aquatic Compartment**

*Acute toxicity to fish*

Dimethyl sulfoxide

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

Not harmful to fish (LC50 > 100 mg/L)

Dicyandiamide

LC50 - 96 h: >1,000 mg/l - Lepomis macrochirus (Bluegill sunfish)

Unpublished reports

*Acute toxicity to daphnia and other aquatic invertebrates*

Dimethyl sulfoxide

EC50 - 48 h: 24,600 mg/l - Daphnia magna (Water flea)

Static test, Analytical monitoring: yes

Dicyandiamide	<p>Method: OECD Test Guideline 202          Fresh water, published data          Not harmful to aquatic invertebrates. (EC50 &gt; 100 mg/l)          EC50 - 48 h: 3,177 mg/l - Daphnia magna (water flea)          Unpublished reports</p>
<p><i>Toxicity to aquatic plants</i>          Dimethyl sulfoxide</p>	<p>EC50 - 72 h: 17,000 mg/l - Pseudokirchneriella subcapitata (green algae)          Static test, analytical monitoring: yes          Method: OECD Test Guideline 201</p>
Dicyandiamide	<p>Fresh water          Unpublished reports          Not harmful to algae (EC50 &gt; 100 mg/l)          EC50 - 96 h: 2,040 mg/l - Pseudokirchneriella subcapitata (green algae)          Unpublished reports</p>
<p><i>Toxicity to microorganisms</i>          Dimethyl sulfoxide</p>	<p>EC50 - 30 min: 10 - 100 mg/l activated sludge          No data available, analytical monitoring: no          Method: ISO 8192          Fresh water, Unpublished reports</p>
<p><i>Chronic toxicity to fish</i>          Dicyandiamide</p>	<p>LC50: &gt;100 mg/l - 14 d - Oryzias latipes (Orange-red killfish)          Unpublished reports</p>
<p><b>Terrestrial Compartment</b>  <i>Toxicity to soil dwelling organisms</i>          Dicyandiamide</p>	<p>NOEC: &gt; 1,000 mg/kg - 14 d - Eisenia fetida (earthworms)          Unpublished reports</p>
<p><i>Toxicity to above ground organisms</i>          Dimethyl sulfoxide</p>	<p>NOEC: &gt; 100 mg/kg - 28 d - soil micro-organisms          LD50: 100 mg/kg - 18 h - Agelaius phoeniceus (red-wing blackbird)          Endpoint: mortality          Published data</p>
Dicyandiamide	<p>LD50: &gt; 2,000 mg/kg - Anas platyrhynchos (Mallard duck)          Gavage, Unpublished reports          LC50: &gt; 5,000 mg/kg - 5 d - Colinus virginianus (Bobwhite quail)          In food, Unpublished reports</p>
<p><b>Ecotoxicity assessment</b>  <i>Acute aquatic toxicity</i>          Dimethyl sulfoxide          Dicyandiamide  <i>Chronic aquatic toxicity</i>          Dimethyl sulfoxide</p>	<p>LC50: &gt;5,000 mg/kg - 5 d - Anas platyrhynchos (Mallard duck)          In food, Unpublished reports          Not harmful to aquatic life (LC/EC50 &gt; 100 mg/l)          This product has no known ecotoxicological effects.          Not classified due to data which are conclusive through insufficient for classification.</p>



**12.2 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  
Ultimate aerobic biodegradability  
Method: OECD Test Guideline 301  
0% - 28 d  
Not readily biodegradable.  
Unpublished reports.

Dicyandiamide

DT50: Half-life value: 0.12 - 1.2 h (86 F (30 C))  
pH: 7.0  
Published data  
Half-life value: 25 h (915.80 F (49.1 C))  
pH: 4.0  
Unpublished reports

**Stability**

*Stability in water*

Dimethyl sulfoxide

pH: 7.0  
Minimal  
Unpublished reports

Dicyandiamide

pH: 9.0  
Minimal  
Unpublished reports

*Photodegradation*

Dimethyl sulfoxide

Sensitizer: OH  
Concentration sensitizer in molecule/cm<sup>3</sup>: 970,000 1/cm<sup>3</sup>  
Rate constant in cm<sup>3</sup>/molecule\*s: 5.9E-11 cm<sup>3</sup>/s  
Half-life indirect photolysis: 2.5 h  
Published data

**Degradability assessment**

*Degradability assessment*



Dimethyl sulfoxide

The product is considered to be rapidly degradable in the environment

**12.3 Bioaccumulative Potential**

*Partition coefficient: n-octanol/water*

Dimethyl sulfoxide

Not potentially bioaccumulable

Dicyandiamide

Not potentially bioaccumulable

Unpublished reports

**12.4 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*

Dimethyl sulfoxide

Ultimate destination of the product: Solid

Water

Predicted distribution to environmental compartments

Unpublished reports

**12.5 Results of PBT and vPvB assessment**

*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).

**12.6 Other adverse effects**

*Environmental assessment*

Dicyandiamide

Not classified as Dangerous for the Environment, according to EC criteria.

**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

*Product Disposal*

Advice on Disposal

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate, or 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

*Advice on cleaning and disposal of packaging*

Advice on Disposal

Rinse with an appropriate solvent.





Dispose of contents/container in accordance with local regulations.

**14. TRANSPORT INFORMATION**

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 this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

**15. REGULATORY INFORMATION**

**15.1 Notification status**

United States TSCA Inventory	YES (positive listing) On TSCA inventory.
Canadian Domestic Substances List (DSL)	YES (positive listing) All components of this product are on the Canadian DSL.
Australia Inventory of Chemical Substances (AICS)	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.

**15.2 Federal Regulations**

**SARA 311/312 Hazards**

Fire hazard	No
Reactivity Hazard	No
Sudden Release of Pressure Hazard	No
Acute Health Hazard	Yes



Chronic Health Hazard	Yes
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**SARA 313** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 302** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**EPCRA – Emergency Planning and Community Right-to-Know**

**CERCLA Reportable Quantity**

Ingredients	CAS No.	Reportable Quantities
Dichloromethane	75-09-2	1000 lb.
Copper	7440-50-8	5000 lb.

**SARA 304 Reportable Quantity**  
This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Reportable Quantity**  
This material does not contain any components with SARA 302 RQ.

**15.3 State Regulations  
California Prop 65**

WARNING! This product contains a chemical known in the State of California to cause cancer.  
Dichloromethane

No significant risk levels (NSRLs) have been established for the following:  
Dichloromethane  
Value: 200 micrograms per day  
Form of exposure: Inhalation

**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

**Further information**

Date updated 01/03/2017  
Further information New product SDS.

**Key or legend to abbreviations and acronyms used in the safety data sheet**



TWA	8 hr time-weighted average
ACGIH	American Conference of Governmental Industrial Hygienists
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)

**Disclaimer:**

The information provided in this safety data sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in another manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.