

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 03/04/2016 Revision date: 01/25/2017 Version: 2.0

SECTION 1: Identification

Identification

Product form : Mixture

Recommended use and restrictions on use 1.2.

No additional information available

Supplier 1.3.

Alltech

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Emergency telephone number

: Chem Trec: 1-800-424-9300 **Emergency number**

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

GHS-US classification

Oxidising Solids, Category 3

Serious eye damage/eye irritation, Category 1

Combustible Dust

May intensify fire; oxidiser Causes serious eve damage

May form combustible dust concentrations in air

GHS Label elements, including precautionary statements

GHS-US labelling

Hazard pictograms (GHS-US)





GHS05

GHS03

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) May form combustible dust concentrations in air

May intensify fire; oxidiser Causes serious eye damage

Precautionary statements (GHS-US) : Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Keep/Store away from clothing and other combustible materials

Take any precaution to avoid mixing with combustibles

Wear protective gloves/protective clothing/eye protection/face protection

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing

Immediately call a poison center/doctor/...

In case of fire: Use media other than water to extinguish

Dispose of contents/container to hazardous or special waste collection point, in accordance

with local, regional, national and/or international regulation

Other hazards which do not result in classification

Other hazards not contributing to the classification

: Persons with allergies should avoid exposure.

2.4. **Unknown acute toxicity (GHS US)**

Not applicable

SECTION 3: Composition/information on ingredients

3.1. **Substance**

Not applicable

3.2. **Mixture**

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Name	Product identifier	%	GHS-US classification
Zinc proteinate	(CAS No) NA	5 - 10	Eye Dam. 1, H318
Manganese proteinate	(CAS No) NA	5 - 10	Eye Dam. 1, H318
Copper proteinate	(CAS No) NA	2.5 - 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

Full text of hazard classes and H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. Obtain medical attention.

First-aid measures after skin contact

: Remove contaminated clothing. Wash contaminated clothing before reuse. If on skin and if skin irritation or rash occurs, seek medical advice and attention. Wash skin with plenty of water.

First-aid measures after eye contact

Immediately flush eyes thoroughly with water for at least 15 minutes. Call a physician immediately. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

First-aid measures after ingestion

: Do not induce vomiting. Obtain medical attention. Call a poison center or a doctor if you feel

Most important symptoms and effects (acute and delayed)

Symptoms/injuries after eye contact

: Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

4.2.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Specific hazards arising from the chemical

Fire hazard : N

: May intensify fire; oxidiser. May ignite spontaneously if exposed to air.

Reactivity

: May cause or intensify fire; oxidizer.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting

: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures

: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Other information

: Mechanically recover the product. Notify authorities if product enters sewers or public waters.

: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid dust formation. Avoid contact with skin and eyes.

Hygiene measures

: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, dry place. Open containers should be resealed. Store in a well-ventilated place.

Keep cool.

Incompatible materials : combustible materials.

Maximum storage period : 12 months

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Manganese proteinate (NA)

Not applicable

Zinc proteinate (NA)

Not applicable

Copper proteinate (NA)

Not applicable

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Environmental exposure controls : Avoid release to the aquatic environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Other information:

Persons with allergies should avoid exposure.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Free-flowing powder.

Colour : Brown

Odour : No data available on odour

Odour threshold : No data available рΗ : No data available Melting point : No data available Freezing point Not applicable **Boiling point** : No data available Flash point : Not applicable Relative evaporation rate (butylacetate=1) : No data available Flammability (solid, gas) : Non flammable. Vapour pressure No data available Relative vapour density at 20 °C : No data available Relative density : Not applicable

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: No data available Solubility : No data available Log Pow Auto-ignition temperature Not applicable Decomposition temperature : No data available Viscosity, kinematic : Not applicable Viscosity, dynamic : No data available Explosive limits : Not applicable Explosive properties : No data available : No data available Oxidising properties

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

May cause or intensify fire; oxidizer.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition. Avoid dust formation.

10.5. Incompatible materials

Combustible materials.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Manganese proteinate (NA)	
LD50 oral rat	> 5000 mg/kg
Zinc proteinate (NA)	
LD50 oral rat	3000 mg/kg
ATE US (oral)	3000.000 mg/kg bodyweight
Copper proteinate (NA)	
LD50 oral rat	500 mg/kg
ATE US (oral)	500.000 mg/kg bodyweight
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after eye contact	: Serious damage to eyes.
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SECTION 12: Ecological information

Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment.

Zinc proteinate (NA)		
LC50 fish 1	0.6 mg/l	
EC50 other aquatic organisms 1	0.447 mg/l	
ErC50 (algae)	0.8718 mg/l	
Copper proteinate (NA)		
LC50 fish 1	0.09 mg/l	
EC50 other aquatic organisms 1	0.141 mg/l	
ErC50 (algae)	> mg/l	

Persistence and degradability

No additional information available

Bioaccumulative potential

No additional information available

Mobility in soil

No additional information available

Other adverse effects

Effect on the global warming : No known effects from this product. **GWPmix** comment : No known effects from this product.

SECTION 13: Disposal considerations

Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

TDG

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

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EU-RegulationsNo additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Revision date : 01/25/2017

Full text of H-statements:

H272	May intensify fire; oxidiser
H302	Harmful if swallowed
H318	Causes serious eye damage

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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