



## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product form:** Mixture

**Product identifier:** N-Ergize

**Product code:** EA0108

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

**Recommended use:** Fertilizer coating

**Recommended restrictions :** Use in accordance with supplier's recommendations.

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

PowerAG

2213 Leabrook Road, Lancaster PA 17601

1-800-842-2578 powerag.com

### 1.4. Emergency telephone number

**Emergency number:** 1-800-424-9300 ChemTrec

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

GHS-US classification

**Skin corrosion/irritation:** Category 3

**Eye irritation:** Category 2B

### 2.2. Label elements

GHS-US labeling

**Hazard pictograms:** 

**Signal word:** Warning

**Hazard statements:**

Causes eye irritation. Causes mild skin irritation.

### 2.3. Precautionary statement(s)

#### Prevention:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required. Wear protective gloves, protective clothing, eye protection and face protection.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Wash hands, forearms and face thoroughly after handling.

Wear eye protection, face protection, skin protection, and clothing protection

#### Response:

**If on skin:** Wash with plenty of water.

**If in eyes:** Rinse with water for several minutes. Remove contact lenses, if present, and continue rinsing.

Immediately seek medical attention or advice.

#### Storage:

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

#### Disposal:

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with all applicable local/state/national/international laws and regulations.

### 2.4. Hazard(s) not otherwise classified (HNOC)

None known

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

This product is a mixture.



### 3.2. Composition—information on ingredients

Chemical name	Common name	CAS number	%
N-Cyanoguanidine	Dicyandiamide	461-58-5	5–15
Dimethyl sulfoxide	DMSO	67-68-5	65–85
Poly L aspartic acid, ammonium salt	PASA	159659-81-1	3–10

**Composition comments:** All concentrations are in percent by weight. Exact percentage values for components are proprietary in accordance with 29 CFR 1910.1200(i). Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

## SECTION 4: FIRST-AID MEASURES

### 4.1. Description of first aid measures

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

**Skin contact:** Remove all contaminated clothing immediately. Wash immediately with soap and plenty of water. If irritation develops and persists, get medical attention. Launder contaminated clothing before reuse.

**Eye contact:** Wash immediately with large amounts of water for 15 minutes, lifting the upper and lower lids until no evidence of product remains. Get medical attention.

**Ingestion:** Rinse mouth thoroughly. Do not induce vomiting without advice from the poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention.

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

Risk of serious damage to eyes.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Fire hazard

Combustible liquid.

### 5.2. Suitable extinguishing media

Carbon Dioxide (CO<sub>2</sub>), dry chemical, foam, water fog

### 5.3. Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread fire.

### 5.4. Specific hazards arising from the chemical

Vapors released in fire conditions may be toxic, irritating, and corrosive

### 5.5. Hazardous combustion products may include

This product contains components which may decompose to release: methanethiol, formaldehyde, water, bis (methylthio) methane, dimethyl disulfide, dimethyl sulfone, dimethyl sulfide, sulfur dioxide, oxides of Carbon, Nitrogen, Sulfur, and other compounds.

### 5.6. Special protective equipment and precautions for firefighters

Firefighters should be equipped with protective clothing and self-contained breathing apparatus to protect against potentially toxic and irritating vapors. In case of fire or explosion, keep unnecessary people away. Isolate hazard area and prevent any entry by non-emergency personnel. Stay upwind, out of low areas and ventilate closed spaces before entering.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment. (See Section 8)

### 6.2. Methods and materials for containment and cleaning up

Do not empty into drains or waters. Do not touch or walk through the spilled material; Stop leak if you can do it without risk. Take up with sand or other non-combustible absorbent material or suitable vacuum and place in labeled sealable containers. Immediately consult your environmental supervisor.

### 6.3. Recommended decontamination facilities

Eye bath and water washing facilities.

**SECTION 7: HANDLING AND STORAGE****7.1. Precautions for safe handling**

Keep away from sources of ignition. No smoking. Observe good industrial hygiene practices. Immediately remove all contaminated clothing. Avoid contact with eyes and skin. Inhalation of vapors and aerosols must be absolutely prevented. Employees should wash their hands and face before eating and drinking and shower thoroughly before leaving work. Keep away from food and drink stuffs.

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

Incompatibles include strong oxidizing and reducing agents. Strong acids and bases. Keep container tightly closed and in a well-ventilated place. Store in accordance with all applicable local, state, national, and international regulations. Avoid temperature extremes during storage. Store at temperatures between 0–38 °C (32–100 °F). If the product is subjected to temperature below 0 °C for an extended period of time, it might result in increased viscosity or some gel formation.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters**

Occupational exposure limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Substance	PEL–TWA (8 hour)	PEL–STEL (15 min.)
Dimethyl sulfoxide (67-68-5)	Not established	Not established
N-Cyanoguanidine (461-58-5)	Not established	Not established

ACGHI Threshold Limit Values

Substance	TLV–TWA (8 hour)	TLV–STEL (15 min.)
Dimethyl sulfoxide (67-68-5)	Not established	Not established
N-Cyanoguanidine (461-58-5)	Not established	Not established

**8.2. Other exposure limits**

**Dimethyl sulfoxide:** 8-hr (AIHA WEEL-TWA): 250 ppm

(AIHA: American Industrial Hygiene Association, WEEL: Workplace Environmental Exposure Levels, TWA: Time-Weighted Average)

**8.3. Appropriate engineering controls**

Use local ventilation.

**8.4. Individual protection measures, such as personal protective equipment**

**Eye/face protection:** Protective eye goggles with side-protection shield.

**Skin and hand protection:** Long-sleeve shirts, pants, gloves (e.g. polyethylene/ethylene vinyl alcohol) and boots are recommended. Impervious suits are recommended when the potential for dermal contact is significant.

**Respiratory protection:** NIOSH-approved organic-vapor respirator, SCBA or SAR.

**Other:** Overalls, apron or other protective clothing.

**Thermal hazards:** Not available.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

**Appearance:**

**Physical state:** Liquid

**Form:** Liquid

**Color:** Slightly hazy to clear blue

**Odor:** Typical.

**Odor threshold:** Not available.

**pH:** 5.5–8.5 (10% in water)

**Melting point/freezing point:** Not available.

**Initial boiling point/boiling range:** Not available.

**Flash point:** 96 °C (204.8 °F)—closed cup

**Other information—flammability:** Not available.

**Evaporation rate:** Not available.

**Flammability (solid, gas):** Not available.

**Upper/lower flammability or explosive limits:**

**Flammability limit—lower:** Not available.

**Flammability limit—upper:** Not available.



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**Explosive limit—lower:** Not available.

**Explosive limit—upper:** Not available.

**Vapor pressure:** Not available.

**Vapor density:** Not available.

**Relative density (specific gravity):** 1.133 @ 20 °C (68 °F)

**Solubilities (water, other):** Dispersible (in water)

**Partition coefficient (n-octanol/water):** Not available.

**Auto-ignition temperature:** Not available.

**Decomposition temperature:** No thermal decomposition is anticipated when stored and handled correctly.

**Viscosity:** Not available.

**Other information:**

**Bulk density:** Not available.

**VOC (Weight %):** Not available.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

The product is stable and non-reactive under normal conditions of use, storage, and transport.

### 10.2. Chemical stability

This product is anticipated to be stable under normal use and storage conditions.

### 10.3. Possibility of hazardous reactions

Not known to cause any hazardous reactions.

### 10.4. Conditions to avoid

Heat, sparks, other sources of ignition, and temperature extremes.

### 10.5. Incompatible materials

Strong oxidizing and reducing agents. Strong acids and bases.

### 10.6. Hazardous decomposition products

This product contains components which may decompose to release methanethiol, formaldehyde, bis (methylthio) methane, dimethyl disulfide, dimethyl sulfone, dimethyl sulfide, sulfur dioxide, oxides of carbon, Nitrogen, Sulfur, and other compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on likely routes of exposure

**Inhalation:** Yes. May cause irritation of the nose, throat, and respiratory tract.

**Ingestion:** Yes. May cause irritation of the gastrointestinal tract.

**Skin:** Yes, skin contact and absorption are possible.

**Eye:** Yes. Causes eye irritation.

### 11.2. Symptoms related to the physical, chemical, and toxicological characteristics:

May cause eye irritation. May cause irritation to nose and throat if inhaled. Skin sensitization (an allergic reaction) may develop. Inhalation may lead to dizziness, nausea, unconsciousness, and other narcotic effects.

### 11.3. Acute toxicity

Components

N-Cyanoguanidine (CAS 461-58-5)

**Oral LD50 (rat):** >10000 mg/kg (bw)

**Dermal LD50 (rabbit):** >2000 mg/kg

**Skin corrosion/irritation:** Not classified.

**Serious eye damage:** Not classified.

**Respiratory sensitization:** Not classified.

**Skin sensitization:** 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.

**Chronic effects:** Not classified.

**Further information:** Not classified.



Dimethyl sulfoxide (CAS 67-68-5)

**Oral LD50 (male rat):** 14500 mg/kg

**Skin LD50 (rabbit):** 5000 mg/kg

**Inhalation gas LD50 (rat):** 40250 ppm

**Skin corrosion/irritation:** Not classified.

**Serious eye damage:** Not classified.

**Respiratory sensitization:** Not classified.

**Skin sensitization:** 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.

**Chronic effects:** Not classified.

**Further information:** Not classified.

Poly L aspartic acid, ammonium salt

Data not available.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Ecotoxicity

**Product data:** Not available.

**Ingredient information:**

Dicyandiamide

**LC50, Oncorhynchus mykiss (rainbow trout):** 7700 mg/l

**EC50, 48h, water flea (Daphnia pulex):** 3177 mg/l

Dimethyl sulfoxide

**LC50, rainbow trout 96h:** 35000 mg/l

**EC50, water flea (Daphnia pulex):** 27500 mg/l

**EC50, algae (Lepomis macrochirus) 96h:** >400000 mg/l

Poly L aspartic acid, ammonium salt

Data not available.

### 12.2. Persistence and degradability

Product data not available.

### 12.3. Bioaccumulative potential

Product data not available.

### 12.4. Mobility in soil

Product data not available.

### 12.5. Mobility in general

Product data not available.

### 12.6. Other adverse effects

Product data not available.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Disposal instructions

Do not allow this material to drain into sewers or water supplies. Dispose of in accordance with all applicable regulations. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of the disposal. Since emptied containers may retain product residue, follow label warnings even after the container is empty.

## SECTION 14: TRANSPORT INFORMATION

**Land Transportation (US-DOT):** Not regulated for transport of dangerous goods.

**Sea Transport (IMDG):** Not regulated for transport of dangerous goods.



## SECTION 15: REGULATORY INFORMATION

### 15.1. US regulations

This product is a 'Hazardous Chemical' as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

**CERCLA Hazardous Substance List (40 CFR 302.4):** Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1050):** Not listed

**EPCRA 311/312 Chemicals and RQs:** To the best of our knowledge there are no chemicals at levels which require reporting under this statute.

**EPCRA 302 Extremely Hazardous:** To the best of our knowledge there are no chemicals at levels which require reporting under this statute.

**EPCRA 313 Toxic Chemicals:** To the best of our knowledge there are no chemicals at levels which require reporting under this statute.

### 15.2. Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

### 15.3. Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

### 15.4. Safe Drinking Water Act

Not regulated.

### 15.5. US State regulations

**California Proposition 65:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**New Jersey Right to Know Components:**

**Dimethyl sulfoxide:** CAS 67-68-5

**Cyanoguanidine:** CAS 461-58-5

**Pennsylvania Right to Know Components:**

**Cyanoguanidine:** CAS 461-58-5

### 15.6. Inventories

**Canada:** Domestic Substances List (DSL)—All components on inventory.

**US:** Toxic Substances Control Act (TSCA) Inventory—All components on inventory.

## SECTION 16: OTHER INFORMATION

**NOTICE:** The information presented herein is based on data considered to be accurate as of the date of preparation of this safety data sheet, and no warranty or representation, expressed or implied, is made to the accuracy or comprehensiveness of the foregoing data and safety information nor is any authorization given or implied to practice any patented invention without a license. The information given herein is believed to be accurate but is not warranted to be whether originating with this company or not. The information is offered solely for your consideration. Recipients are advised to confirm in advance of need that the information is current and suitable for their need. Due to the several ways in which the product may be used and the possible interaction with variables not depending on or unknown to the supplier, the supplier cannot accept any liability whatsoever for any loss or damage however arising from the handling and use of product. Purchasers and users assume all risk of use, storage, and handling of the product in compliance with applicable federal, state, local, and international laws and regulations.