

# SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

## 1. Identification

**Product identifier:** AgraLi®

**Other means of identification**

**Recommended restrictions**

**Recommended use:** Fertilizer

**Restrictions on use:** Not known.

**Manufacturer/Importer/Distributor Information**

Company Name : Evonik Corporation  
Nutrition & Care  
PO Box 34628  
Richmond, VA 23234  
USA

Telephone : +1 804 727 0700

Fax : +1 804 727 0845

E-mail : product-regulatory-services@evonik.com

**Emergency telephone number:**

24-Hour Health : +1 800 424 9300 (CHEMTREC - US & CANADA)

Emergency : 800 681 9531 (CHEMTREC MEXICO)

+1 703 527 3887 (CHEMTREC WORLD)

## 2. Hazard(s) identification

**Hazard Classification**

Not classified

**Label Elements**

**Hazard Symbol:** No symbol

**Signal Word:** No signal word.

**Hazard Statement:** Not applicable

**Precautionary Statements**

**Hazard(s) not otherwise classified (HNOC):**

None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical Identity	CAS number	Content in percent (%) <sup>*</sup>
Concentrated filtrate of the neutralized reaction product of 5-[2-(methylthio)alkyl]imidazolidine-2,4-dione and potassium carbonate		

<sup>\*</sup> All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Composition Comments:** Aqueous Solution  
 The exact concentration has been withheld as a trade secret.

### 4. First-aid measures

#### Description of necessary first-aid measures

- General information:** Pay attention to self-protection. Remove victims from hazardous area. Immediately remove soiled or soaked clothing and remove it to a safe distance. Keep victim warm, in a stabilized position and covered. Do not leave victims unattended. If the casualty is unconscious: Place the victim in the recovery position.
- Inhalation:** Inhalation is possible if aerosols, mists, dusts, or smoke form. Move victims into fresh air. With labored breathing: Provide with oxygen. Consult a doctor. If the casualty is not breathing: Perform mouth-to-mouth resuscitation, notify emergency physician immediately.
- Skin Contact:** Wash off affected area immediately with plenty of water for at least 15 minutes. If symptoms persist, consult a physician for treatment.
- Eye contact:** With eye held open, thoroughly rinse immediately with plenty of water for at least 10 minutes. In case of persistent discomfort: Consult an ophthalmologist.
- Ingestion:** Rinse mouth. Immediately give large quantities of water to drink. Obtain medical attention.
- Personal Protection for First-aid Responders:** Use personal protective equipment., In the event of fire, wear self-contained breathing apparatus.

#### Most important symptoms/effects, acute and delayed

**Symptoms:** No data available.

**Hazards:** No data available.

#### Indication of immediate medical attention and special treatment needed

**Treatment:** If substance has been swallowed: Possible potassium ions poisoning  
 Danger of: heart palpitations, disturbances of the central nervous system, drop in blood pressure, cardiac arrest. Treatment gastric lavage  
 Acceleration of gastrointestinal passage administration of activated charcoal. Monitoring of electrolyte metabolism, correction of acid-base balance, cardio-vascular monitoring.

### 5. Fire-fighting measures

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** All extinguishing substances suitable.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** The product itself does not burn. May be released in case of fire: hydrocyanic acid, flammable smouldering gases, NOX. sulphur dioxide Carbon Monoxide. Carbon Dioxide.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus.

<b>6. Accidental release measures</b>
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**Personal precautions, protective equipment and emergency procedures:** Wear suitable protective clothing. Keep out unauthorised persons.

**Methods and material for containment and cleaning up:** Pick up mechanically with a suitable material and collect in a suitable container. Dispose of absorbed material in accordance with the regulations.

**Environmental Precautions:** Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

<b>7. Handling and storage</b>
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**Handling**

**Technical measures (e.g. Local and general ventilation):** No data available.

**Safe handling advice:** Handle in accordance with good industrial hygiene and safety practice. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.No special measures are necessary if properly handled.

**Contact avoidance measures:** No data available.

**Hygiene measures:** No eating, drinking, smoking, or snuffing tobacco at work. Wash face and/or hands before break and end of work. Do not swallow product. Keep clothes separate. Immediately change moistened and saturated work clothes.

**Storage**

**Safe storage conditions:** Protect from frost. Store only in suitable, anti-corrosive liquid fertilizer storage tanks.

**Safe packaging materials:** No data available.

<b>8. Exposure controls/personal protection</b>
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**Control Parameters**

### Occupational Exposure Limits

**Appropriate Engineering Controls** No data available.

### Individual protection measures, such as personal protective equipment

**Eye/face protection:** Safety glasses with side-shields

#### Skin Protection

**Hand Protection:** Material: Nitrile.  
 Break-through time: > 480 min  
 Guideline: DIN EN 374  
 Material: Natural rubber.  
 Break-through time: > 480 min  
 Guideline: DIN EN 374

**Skin and Body Protection:** No data available.

**Respiratory Protection:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

**Hygiene measures:** No eating, drinking, smoking, or snuffing tobacco at work. Wash face and/or hands before break and end of work. Do not swallow product. Keep clothes separate. Immediately change moistened and saturated work clothes.

## 9. Physical and chemical properties

### Appearance

**Physical state:** liquid  
**Form:** liquid  
**Color:** yellow to brown  
**Odor:** distinct intense  
**Odor Threshold:** approx. 3 ppm (literature value), tested substance: DL-Methionine  
**pH:** 8 - 11  
**Freezing point:** approx. 0 °C  
**Boiling Point:** 100 °C  
**Flash Point:** not relevant, since based on water  
**Evaporation Rate:** No data available.  
**Flammability (solid, gas):** not to be expected, given the composition employed

**Explosive limit - upper (%):** Not applicable  
**Explosive limit - lower (%):** Not applicable  
**Vapor pressure:** 0.00055 hPa (20 °C) (OECD Test Guideline 104) (dried product)  
**Vapor density (air=1):** No data available.  
**Density:** 1.1 - 1.3 g/cm<sup>3</sup>  
**Relative density:** 1.1 - 1.3 Water = 1  
**Solubility(ies)**  
**Solubility in Water:** > 853 g/l (23 °C, OECD Test Guideline 105) (dried product)  
**Solubility (other):** Not applicable

<b>Partition coefficient (n-octanol/water):</b>	-2.5 (EEC, measured) (dried product)
<b>Self Ignition Temperature:</b>	(EEC method 92/69/EEC, A 16) not auto-flammable tested substance: (dried product)
<b>Decomposition Temperature:</b>	No data available.
<b>Kinematic viscosity:</b>	No data available.
<b>Dynamic viscosity:</b>	4.75 mPa.s (20 °C)
<b>Other information</b>	
<b>Explosive properties:</b>	not to be expected, given the composition employed
<b>Oxidizing properties:</b>	not to be expected, given the composition employed
<b>Metal Corrosion:</b>	(ASTM G-31(99)) Not corrosive to aluminium. Aluminium (7075-T6) < 0.1 mm/a (ASTM G-31(99)) Steel (St 37-2)

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	No data available.
<b>Possibility of hazardous reactions:</b>	No hazardous reactions are known if properly handled and stored.
<b>Conditions to avoid:</b>	No further information available
<b>Incompatible Materials:</b>	No further information available
<b>Hazardous Decomposition Products:</b>	No further information available

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	Relevant route of exposure. Information on effects are given below.
<b>Skin Contact:</b>	Relevant route of exposure. Information on effects are given below.
<b>Eye contact:</b>	Relevant route of exposure. Information on effects are given below.
<b>Ingestion:</b>	If handled correctly, not a relevant route of exposure. Information on effects are given below.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral</b>	
<b>Product:</b>	LD 50 (Rat): > 5,000 mg/kg [(dried product)]
<b>Dermal</b>	

**Product:**

**Inhalation**

**Product:** LC 50 (Rat): > 5.45 mg/l [(dried product)](limit test), No deaths observed.

**Repeated dose toxicity**

**Product:** NOAEL (Rat, Oral): 1,000 mg/kg

**Skin Corrosion/Irritation**

**Product:** Not irritating OECD Test Guideline 404 (Rabbit, 4 h): Not irritating

**Serious Eye Damage/Eye Irritation**

**Product:** Not irritating Rabbit: Not irritating

**Respiratory or Skin Sensitization**

**Product:** Local Lymph Node Assay, OECD Test Guideline 429 (Mouse): Not a skin sensitizer.

**Carcinogenicity**

**Product:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

**US. National Toxicology Program (NTP) Report on Carcinogens:**

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

**Germ Cell Mutagenicity**

**In vitro**

**Product:** Ames test (OECD TG 471): negative  
Cytogenetic Test (chromosome aberration) (OECD TG 473): negative

**In vivo**

**Product:** Micronucleus test (OECD TG 474) Oral (Mouse): negative Own study

**Reproductive toxicity**

**Product:** No data available.

**Components:**

Concentrated filtrate of the neutralized reaction product of 5-[2-(methylthio)alkyl]imidazolidine-2,4-dione and potassium carbonate

Not classified

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

##### Fish

**Product:** LC 50 (Cyprinus carpio, 96 h): > 1,000 mg/l  
LC0 (Cyprinus carpio, 96 h): 1,000 mg/l

##### Aquatic Invertebrates

**Product:** EC 50 (Daphnia magna, 48 h): 811 mg/l  
NOEC (Daphnia magna, 21 d): 50 mg/l

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic Invertebrates

**Product:** No data available.

##### Components:

Concentrated filtrate of the neutralized reaction product of 5-[2-(methylthio)alkyl]imidazolidine-2,4-dione and potassium carbonate

NOEC (Daphnia magna (Water flea), 21 d): 50 mg/l

##### Toxicity to Aquatic Plants

**Product:** EC 50 (Desmodemus subspicatus, 72 h): 941 mg/l  
EC 50 (Desmodemus subspicatus, 72 h): > 1,000 mg/l  
NOEC (Desmodemus subspicatus, 72 h): 500 mg/l

### Persistence and Degradability

##### Biodegradation

**Product:** > 82 % (28 d, OECD TG 301 F)

##### BOD/COD Ratio

**Product:** No data available.

### Bioaccumulative potential

##### Bioconcentration Factor (BCF)

**Product:** No data available.

### Partition Coefficient n-octanol / water (log Kow)

**Product:** Log Kow: -2.5 23 °C (EEC, measured) (dried product)

**Mobility in soil:** No data available.

**Components:**

Concentrated filtrate of the neutralized reaction product of 5-[2-(methylthio)alkyl]imidazolidine-2,4-dione and potassium carbonate

No data available.

**Other adverse effects:** No further information available

**13. Disposal considerations**

**Disposal methods:** Waste must be disposed of in accordance with federal, provincial and local regulations.

**Contaminated Packaging:** Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities.

**14. Transport information**

**Domestic regulation**

**49 CFR**

Not regulated as a dangerous good

Remarks : Not dangerous according to transport regulations.

**International Regulations**

**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**15. Regulatory information**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

**US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)**



None present or none present in regulated quantities.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****Hazard categories**

Not classified

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances****SARA 311/312 Hazardous Chemical****Chemical Identity****Threshold Planning Quantity**

None present or none present in regulated quantities.

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**US State Regulations****US. California Proposition 65**

No ingredient requiring a warning under CA Prop 65.

**US. New Jersey Worker and Community Right-to-Know Act**

No ingredient regulated by NJ Right-to-Know Law present.

**US. Massachusetts RTK - Substance List**

No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**

No ingredient regulated by PA Right-to-Know Law present.

**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.

**16. Other information, including date of preparation or last revision**

**Issue Date:** 07/22/2019

**Version #:** 1.0

**Further Information:** No data available.

**Revision Information:**

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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