PRODUCT NAME ALLGANIC NITROGEN PLUS

Product Code: 053\_A/01-US
Date of issue: April 2016



## 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier Allganic Nitrogen Plus

Allganic Nitrogen Plus 15-0-2

**Recommended uses:** 

Only for professional use in the formulation of fertilizer preparations and end-use as fertilizer

Supplier SQM North America

2727 Paces Ferry Rd, Building Two, Suite 1425

Atlanta, GA 30339

 Company Telephone/Fax
 (770) 916 9400 / (770) 916 9404

 Emergency Telephone Number
 (800) 424 9300 (CHEMTREC)

## 2. HAZARDS IDENTIFICATION

## Classification of the substance or mixture

Classification of the chemical in accordance with 29CFR §1910.1200

Hazard classes and Hazard categories Hazard statements
Midly irritating to eyes, cat. 2B Causes eye irritation.

Label elements
Hazard pictograms

Not applicable

Signal word WARNING

Hazard Statements Causes eye irritation.

**Precautionary Statements** 

Wash hands thoroughly after handling.

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.

### Other hazards

None

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product has to be considered as a mixture/preparation

Ingredients classified as health hazards CAS No EC No Concentration Sodium nitrate 7631-99-4 231-554-3 > 90 % Perchlorate (ClO $_4$ ) < 0.01 % lodate (IO $_3$ ) 0.005 - 0.01 %

### 4. FIRST AID MEASURES

# **Description of first aid measures**

#### **General information**

In case of persisting adverse effects consult a physician.

Never give anything by mouth to an unconscious person or a person with cramps.

### In case of inhalation

Remove to fresh air and keep at rest in a position comfortable for breathing.

Get medical attention for any breathing difficulty.

# In case of skin contact

Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

#### In case of eye contact

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.

## In case of ingestion

Rinse mouth immediately and drink plenty of water.

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

The following symptoms may occur:

Delayed lung effects after short term exposure to thermal degradation products

In case of skin contact May cause redness or irritation In case of eye contact Causes serious eye irritation.

In case of ingestion Ingestion of large amounts may cause: Gastrointestinal disturbances

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

## **Extinguishing media**

Suitable extinguishing media: Use any suitable mean for extinguishing surrounding fire. Spray water for small

fires. For large fires flood with abundant water.

Unsuitable material: None, but attention should be paid to compatibility with chemicals surrounding.

# Specific hazards arising from the chemical

This product may enhance an existing fire.

Thermal decomposition can lead to the escape of toxic/corrosive gases and vapours.

Thermal decomposition products: Nitrous oxides (NOx), sodium nitrite and sodium oxide.

# Protective equipment and precautions for firefighters

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (self contained breathing apparatus (SCBA)).

# 6. ACCIDENTAL RELEASE MEASURES

# **Personal precautions**

Provide adequate ventilation. Wear personal protection equipment (Section 8).

### **Environmental precautions**

Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

### Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal or recovery.

Unsuitable material for containment/taking up: Do not absorb in saw-dust or other combustible absorbents.

### Other information

None

### 7. HANDLING AND STORAGE

### **Precautions for Safe Handling**

Avoid generation of dust. Provide adequate ventilation. Wear personal protective equipment. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from flammable, combustible, strong acids and reducing substances.

Perchlorate containing product - Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate and Section 15 for more information regarding California State regulations.

### Conditions for safe storage, including any incompatibilities

Keep/store only in original container. Store in a well-ventilated place. Keep container tightly closed.

Do not store together with: Flammable substance, reducing agents, strong acids, empty wood pallets.

Perchlorate containing product - Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate and Section 15 for more information regarding California State regulations.

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# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# **Exposure Guidelines**

### Occupational exposure limits

Sodium nitrate:

OSHA PEL Not Established

STEL/ceiling Not Established

ACGIH TWA Not Established (2012 TLVs® and BEIs®)

STEL/ceiling Not Established (2012 TLVs® and BEIs®)

# Derived No-Effect Level (DNEL) suggested by the manufacturer

Workers (industrial/professional):	
DNEL Human, dermal, long term (repeated):	20.8 mg/kg/day (systemic)
DNEL Human, inhalation, long term (repeated):	36.7 mg/m <sup>3</sup> (systemic)

Derived No-Effect Level (DNEL) is the level of exposure to the substance above which humans should not be exposed.

#### **Engineering controls**

Use exhaust ventilation to keep airborne concentrations below exposure limits.

## **Personal Protective Equipment**

Eye/face protection Chemical goggles required all the time.

Skin Protection Nitrile rubber gloves, over 0.11 mm thickness, > 480 min breakthrough time,

recommended.

Respiratory Protection Wear respiratory protection, where airborne concentrations are expected to

exceed exposure limits

### **General Hygiene Considerations**

Avoid contact with eyes and skin. Wash hands thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

Appearance Solid, prilled
Colour White
Odour Odourless
Odour Threshold No applicable

pH value 8-10 (1% aqueous solution)

Melting point / freezing range

Boiling temperature / boiling range

Flash point

Vapourisation rate / Evaporation rate

Flammable solids

Explosion limits (LEL, UEL)

Not applicable

Not applicable

Not flammable

Not applicable

Vapour pressure Considered negligible (based on melting point)

Vapour density Not applicable

Density 1.25 ton (metric) / m<sup>3</sup>

Solubility > 96 g/L at 20 °C/68 °F (water)

Partition coefficient n-octanol /water
Auto Ignition temperature (AIT)

Decomposition temperature

Viscosity

Explosive properties

Oxidising properties

Not applicable

Not applicable

Not explosive

Not oxidizer

### Other information

None

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# 10. STABILITY AND REACTIVITY

## Reactivity

No hazardous reaction when handled and stored according to provisions.

## **Chemical stability**

Stable under normal storage and temperature conditions.

### Possibility of hazardous reactions

None identified

#### **Conditions to avoid**

Keep away from flammable, combustible, strong acids and reducing materials.

### Incompatible materials

Flammable, combustible, strong acids and reducing substances under specific conditions. These incompatible materials shall not include approved packaging materials, pallets, or other dunnage (NFPA 430/2004, Code for the Storage of Liquid and Solid Oxidizers, item 4.4.3.1).

# **Hazardous decomposition products**

Thermal decomposition products: Nitrous oxides  $(NO_x)$ , sodium nitrite and sodium oxide.

## 11. TOXICOLOGICAL INFORMATION

The following information mostly refers to the major component of the product.

## Likely routes of exposure (inhalation, ingestion, skin and eye contact)

Eye contact, skin contact and inhalation. Exposure by ingestion is not expected to occur through normal industrial use.

# Symptoms related to the physical, chemical and toxicological characteristics

May be irritant to the respiratory tract. Causes serious eye irritation. May cause redness or irritation to the skin. Ingestion of large amounts may cause gastrointestinal disturbances. May cause delayed lung effects after short term exposure to thermal degradation products.

### Information on toxicological effects from short and long term exposure

There is no data for the mixture itself.

Acute toxicity Method:

Acute oral toxicity LD50:

Acute Toxicity Estimate for the mixture > 2000 mg/kg bw (additivity formula)

Acute dermal toxicity LD50:

Acute Toxicity Estimate for the mixture >2000 mg/kg pc (additivity formula)

Acute inhalation toxicity LC50:

Acute Toxicity Estimate for the mixture Does not contain acutely toxic ingredients/impurities.

Assessment / classification: Based on available data for the ingredients of the mixture, the classification

criteria are not met.

Irritant and corrosive effects

Irritation to the skin Result Method:

Main ingredients non-irritating to skin Equivalent/similar to OECD guideline 404

Assessment / classification: Based on available data for the ingredients of the mixture, the classification

criteria are not met.

Irritation to eyes Result Species: Method:

Sodium nitrate non-irritant. *In vitro* study OECD Guideline 437
Sodium nitrate Irritant Rabbit. OECD Guideline 405
Assessment / classification: Based on available data for ingredients of the mixture, this product is classified

and labelled as Midly irritating to eyes, category 2B: Causes eye irritation, in

accordance with Appendix A to 29CFR section 1910.1200.

Respiratory or skin sensitisation

Skin sensitization Result Method

Main ingredients not sensitising. OECD Guideline 429

Respiratory sensitisation No information available.

Assessment / classification: Based on available data for the ingredients of the mixture, the classification

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criteria are not met.

**Genetic effects** 

The product does not contain ingredients classified as germ cell mutagens. The following data refers to sodium nitrate.

In-vitro genotoxicity Method Result

Gene-mutations microorganisms Equivalent or similar to OECD 471 negative (literature information)

Chromosome aberrations mammalian cells OECD Guideline 473/EU B.10 negative

In-vivo genotoxicity

In-vivo unscheduled DNA Synthesis (UDS) According to Alavantic, D. (1988) negative (literature information)

*In-vivo* micronucleus assay equivocal (literature information)

In-vivo chromosome aberrations equivocal (literature information)

Assessment / classification: Based on available data for the ingredients of the mixture, the classification

criteria are not met.

Reproductive toxicity

Adverse effects on sexual function and fertility/developmental toxicity

OECD guideline 422.

Main ingredients No adverse effects on fertility/development (NOAEL >1500 mg/kg bw).

Assessment / classification: Based on available data for the ingredients of the mixture, the classification

criteria are not met.

Specific target organ toxicity (single exposure)

The product does not contain relevant ingredients classified as Target Organ Toxicant.

Practical experience / human evidence

No relevant effect have been observed after single exposure to the relevant ingredients.

Assessment / classification: Based on available data for the ingredients of the mixture, the classification

criteria are not met.

Specific target organ toxicity (repeated exposure)

The product does not contain relevant ingredients classified as Target Organ Toxicant.

Organs affected: Effects Guideline

Main ingredients None No effects (NOAEL >1500 mg/kg bw) OECD 422

Assessment / classification: Based on available data for the ingredients of the mixture, the classification

criteria are not met.

**Aspiration hazard** 

Physicochemical data and toxicological information does not indicate an aspiration hazard.

Assessment / classification: Based on available data, the classification criteria are not met

Carcinogenicity

International Agency for Research on Cancer (IARC) No component of this product present at levels ≥0.1% is identified

as probable, possible or confirmed human carcinogen by IARC.

National Toxicology Program (NTP) No component of this product present at levels ≥0.1% is identified

as known or anticipated carcinogen by NTP.

29 CFR part 1910, subpart Z No component of this product present at levels ≥0.1% is identified

as carcinogen or potencial carcinogen by OSHA.

California Proposition 65 No component of this product present at levels ≥0.1% is identified

as carcinogen by California Prop.65.

WHO (2003) Nitrate in drinking water

No association between nitrate exposure in humans and the risk

of cancer

Assessment / classification: Based on available data for the ingredients of the mixture, the classification

criteria are not met.

**Other Toxicological Information** 

This product contains trace amounts of naturally-occurring perchlorate and iodate. Like other goitrogenic substances, perchlorate may affect iodine uptake by thyroid under specific conditions.

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## 12. ECOLOGICAL INFORMATION

There is no data for the mixture itself. The following information mostly refers to the major component of the product.

### **Ecotoxicity**

## **Aquatic Toxicity**

Toxicity estimate for the mixture (summation method)

96-h L(E)C50 >100 mg/L Fish

24-h E(E)C50 >100 mg/L Daphnia magna (fresh water flea).

72-h E(E)C50 > 100 mg/L Algae

Assessment / classification Based on available data for the ingredients of the mixture, the classification

criteria are not met.

## Persistence and degradability

The product contains mainly inorganic nitrate salts. In aqueous compartments, these salts will dissociate into sodium and nitrate ions. Other minor compounds are also expected to be dissociated in their corresponding ions. Sodium ions are not subject to further degradation. Under anoxic conditions, nitrate is subjected to denitrification and is ultimately converted into molecular nitrogen as part of the nitrogen cycle. Nitrate and other oxyanions impurities are likely to be found in oxic compartments.

#### **Bioaccumulative potential**

Low potential for bioaccumulation based on physicochemical properties of main components.

#### Mobility in soil

Nitrate has a low potential for adsorption. Portion not taken up by plants, can leach to groundwater. Sodium can participate in ion exchange processes.

#### Other adverse effects

Excess nitrate leaching may enrich waters leading to eutrophication.

### 13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable federal and state laws.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal method in compliance with applicable regulations.

Sodium nitrate waste exhibiting the characteristic of ignitability has the EPA Hazardous Waste Number of D001 according to the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Perchlorate containing product - Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate and Section 15 for more information regarding California State regulations.

#### 14. TRANSPORTATION INFORMATION

# **US DOT (49CFR part 172)**

UN-No. Non dangerous good
UN Proper Shipping Name Not applicable
Hazard class Not applicable
Packing group Not applicable
Hazard label(s) Not applicable

Special marking No Special Provision No

# International Maritime Organization (IMDG Code)

UN-No. Non dangerous good

UN Proper Shipping Name

Hazard class

Not applicable
Packing group

Not applicable

Marine pollutant No

Hazard label(s) Not applicable

Special marking No Special Provision No

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International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA)

UN-No. Non dangerous good

UN Proper Shipping Name Not applicable
Hazard class Not applicable
Packing group Not applicable
Hazard label Not applicable

Special marking No

Special handling procedure

None

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

Not applicable

Other special precautions

None

# 15. REGULATORY INFORMATION

#### **US Federal**

SARA Title III Rules

Section 311/312 Hazard Classes

Acute Health Hazard Yes (Irritant)

Chronic Health Hazard No
Fire Hazard No
Release of Pressure No
Reactive Hazard No

Section 313 Toxic Chemicals

N511 Nitrate compounds (water dissociable; reportable only when in aqueous solution)

Section 302 Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances

Sodium nitrate is not listed

DHS - Chemical of Interest (Appendix A to 6CFR Part 27)

Sodium nitrate is listed (ACG)

NFPA 704/2012: National Fire Protection Association

Health 1
Fire 0
Instability 0
Special None

**US State Regulations** 

California Proposition 65 None ingredient is listed.

California Code of Regulations Title 22 (Health & Safety See http://www.dtsc.ca.gov/hazardouswaste/perchlorate/

Code), Chapter 33

Canada

WHMIS 2015 Classification: Midly irritating to eyes, cat. 2B Causes eye irritation.

This product has been classified according to the hazard criteria of the 2015 Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

**European Union** 

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Hazard classes and Hazard categories Hazard statements

Eye Irrit. 2 H319

**Chemical Inventories** 

United States TSCA All ingredients are listed
Canada DSL All ingredients are listed
México (INSQ) All ingredients are listed
European Union (EINECS) All ingredients are listed
China (IECS) All ingredients are listed

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Japan (METI)All ingredients are listedKorea (KECI)All ingredients are listed

# **16. OTHER INFORMATION**

This SDS complies with 29 CFR part 1910 subpart Z (2012), Canada WHMIS (2015) and ANSI Standard Z400.1-2004

**Data source** REACH Registration Dossiers for major components

Prepared by Regulatory Affairs Department, SQM

**E-mail** product\_safety@sqm.com

spn-northamerica@sqm.com

Date of issue: April 2016 Supersedes

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### **Indication of changes**

Version 1 (April 2016) New document.