

SAFETY DATA SHEET

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 Silver Fern Chemical, Inc.
2226 Queen Anne Ave N.
Seattle, WA 98109
Company Contact info Ph: 206-282-3376 / Ph: 866-282-3384 / info@silverfernchemical.com
Emergency Telephone Number Infotrac **1-800 535-5053 (USA & Canada)**
1-352-323-3500 (Outside USA & Canada)

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 %
Iodate (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:

In case of inhalation	Irritation to respiratory tract 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 ³ (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	Not applicable
Boiling temperature / boiling range	Not applicable
Flash point	Not applicable
Vapourisation rate / Evaporation rate	No data available
Flammable solids	Not flammable
Explosion limits (LEL, UEL)	Not applicable
Vapour pressure	Considered negligible (based on melting point)
Vapour density	Not applicable
Density	1.25 ton (metric) / m ³
Solubility	> 96 g/L at 20 °C/68 °F (water)
Partition coefficient n-octanol /water	Not applicable
Auto Ignition temperature (AIT)	Not applicable
Decomposition temperature	> 550 °C/1022 °F
Viscosity	Not applicable
Explosive properties	Not explosive
Oxidising properties	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

	LD50:	Method:
Acute oral toxicity		
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

	Result	Method:
Irritation to the skin		
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.	

	Result	Species:	Method:
Irritation to eyes			
Sodium nitrate	non-irritant.	<i>In vitro</i> 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

	Result	Method
Skin sensitization		
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.

<i>In-vitro genotoxicity</i>	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
<i>In-vivo genotoxicity</i>		
<i>In-vivo</i> unscheduled DNA Synthesis (UDS)	According to Alavantic, D. (1988)	negative (literature information)
<i>In-vivo</i> micronucleus assay		equivocal (literature information)
<i>In-vivo</i> 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.

Main ingredients	Organs affected:	Effects	Guideline
Assessment / classification:	None	No effects (NOAEL >1500 mg/kg bw)	OECD 422

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 $\geq 0.1\%$ is identified as probable, possible or confirmed human carcinogen by IARC.
National Toxicology Program (NTP)	No component of this product present at levels $\geq 0.1\%$ is identified as known or anticipated carcinogen by NTP.
29 CFR part 1910, subpart Z	No component of this product present at levels $\geq 0.1\%$ is identified as carcinogen or potential carcinogen by OSHA.
California Proposition 65	No component of this product present at levels $\geq 0.1\%$ 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	<i>Daphnia magna</i> (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	Not applicable
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 Code), Chapter 33

See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate/>

Canada

WHMIS 2015 Classification:

Mildly 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 listed
Korea (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

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Supersedes -

DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable

Indication of changes

Version 1 (April 2016) New document.