

# allganic™

## PRODUCT DATA SHEET

**PRODUCT :** SODIUM NITRATE  
**BRAND NAME :** ALLGANIC NITROGEN  
**ORGANIC USE :** CERTIFIED BY OMRI (Organic Materials Review Institute, USA)  
**CERTIFICATE :** sqm-9732

### CHEMICAL SPECIFICATIONS GUARANTEED

NITROGEN	N	16 %	min
CHLORIDE	Cl	1 %	max

### CHEMICAL SPECIFICATIONS TYPICAL

NITROGEN	N	16.0 %
CHLORIDE	Cl	0.8 %

### SCREEN ANALYSIS (CUMULATIVE %)

US Standard	Tyler	mm	%
+8	+8	2.36	12 %
+12	+10	1.70	66 %
+16	+14	1.18	97 %
+20	+20	0.85	99 %

Note: Measured at plant site. Particle size can be affected by handling and transportation

### PHYSICAL PROPERTIES

MELTING POINT	~ 308 °C
SOLUBILITY (in water at 20 °C)	88 g / 100 cm <sup>3</sup>
DENSITY (Bulk)	1.25 ton (metric) /m <sup>3</sup>
SPECIFIC GRAVITY	2.257
ANGLE OF REPOSE	31°

Before using this product, please read the product specifications, the material safety data sheet and any other applicable product literature.

The conditions of your use and application of our products, technical assistance and information (whether verbal, written, or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis at least must include testing to determine suitability from a technical as well as health, safety, and environmental standpoints. It is also not recommended that the product be used for any described purpose without verification by the user of compliance with all applicable laws, regulations and registration requirements. No warranty is made as to the accuracy of any data or statements contained herein. While this product is furnished in good faith, this product is provided to you without any representation or warranty, expressed or implied, as to quality, condition, utility, merchantability, completeness, suitability or fitness for any particular purpose or use or any other matter or thing whatsoever and without recourse against SQM in any event. Without limiting the generality of the foregoing, SQM specifically disclaims any responsibility or liability relating to the use of this product and shall not in any event, be liable for any special, incidental or consequential damages arising from such use.





# OMRI Listed®

The following product is OMRI Listed. It may be used in certified organic production or food processing and handling according to the USDA National Organic Program Rule.

## Product

Allganic™ Nitrogen Natural Nitrate of Soda Crystalline 16-0-0

## Company

SOM North America Corp.

Mr. Jason Woulfin

2727 Paces Ferry Rd, Bldg Two, Ste 1425

Atlanta, GA 30339

## Status

Allowed with Restrictions

## Category

NOP: Sodium Nitrate (Chilean Nitrate)

## Issue Date

11-Aug-11

## Product number

sqm-2622

## Class

Crop Fertilizers and Soil Amendments

## Expiration Date

01-Dec-2014

## Restrictions

Pending additional rule-making, the use of sodium nitrate shall follow these stipulations: Before October 21, 2012, operations shall not meet more than 20 percent of an organic crop's nitrogen requirement with sodium nitrate. On or after October 21, 2012, operators using sodium nitrate shall use it in a manner that maintains or improves the natural resources of the operation, including soil and water quality, and comply with crop nutrient and soil fertility requirements.

*Peggy Mears*

Executive Director

Product review is conducted according to the policies in the current OMRI Policy Manual and based on the standards in the current OMRI Standards Manual. To verify the current status of this or any OMRI Listed product, view the most current version of the OMRI Products List at [www.omri.org](http://www.omri.org). OMRI listing is not equivalent to organic certification and is not a product endorsement. It cannot be construed as such. Final decisions on the acceptability of a product for use in a certified organic system are the responsibility of a USDA accredited certification agent. It is the operator's responsibility to properly use the product, including following any restrictions.



Organic Materials Review Institute

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**SAFETY DATA SHEET****PRODUCT NAME****ALLGANIC NITROGEN**

Product Code:

053/04-US

Date of Issue:

January 2014

Supersedes: January 2013

**allganic****1. PRODUCT AND COMPANY IDENTIFICATION**

Product identifier

ALLGANIC NITROGEN  
Sodium Nitrate**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 51910.1200

Hazard classes and Hazard categories

Oxidizing solid, Cat. 3

Mildly irritating to eyes, cat. 2B

Hazard statements

May intensify fire; oxidizer

Causes eye irritation.

Label elements

Hazard pictograms



Signal word

Warning

Hazard Statements

May intensify fire; oxidizer  
Causes eye irritation.

Precautionary Statements

Keep away from flammable / combustible / reducing materials.

Wear eye protection. Wash hands thoroughly after handling.

In case of fire: use any suitable mean for extinguishing surrounding fire. Spray water for small fires. For large fires flood with abundant water.

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.

Dispose of contents/container according to local/state/federal regulations.

Other hazards

None

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance name	CAS No	EC No	Concentration
Sodium nitrate	7631-99-4	231-554-3	> 95 %
Sulphate (SO <sub>4</sub> <sup>2-</sup> )			< 2 %
Potassium (K <sup>+</sup> )			< 2 %
Chloride (Cl <sup>-</sup> )			< 1 %
Perchlorate (ClO <sub>4</sub> <sup>-</sup> )			< 0.01 %
Iodate (IO <sub>3</sub> <sup>-</sup> )			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.

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**allganic™****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. Remove contaminated, saturated clothing immediately.

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.

**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**

Oxidizer. Contact with combustible materials will not cause spontaneous ignition, however, sodium nitrate will 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 and reducing substances.

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**PRODUCT NAME** ALLGANIC NITROGEN  
**Product Code:** 053/04-US  
**Date of issue:** January 2014



**Supersedes:** January 2013

Perchlorate containing product - Special handling may apply. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://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: Combustible substance, reducing agents

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

## 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. Have eye-wash facilities immediately available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Solid, prilled or crystalline
Colour	White
Odour	Odourless
Odour Threshold	No applicable
pH value	8-10 (5% aqueous solution)
Melting point / freezing range	307 °C/584 °F at 1013 hPa
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	No data available
Density	2.26 at 20 °C/68 °F
Solubility	> 100 g/L at 20 °C/68 °F (water)

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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	Oxidizer
Other information	
None	

**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 and reducing substances.

**Incompatible materials**

Flammable, combustible and reducing substances under specific conditions.

**Hazardous decomposition products**

Thermal decomposition products: Nitrous oxides (NO<sub>x</sub>), 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**
**Acute toxicity**

Acute oral toxicity	LD50:	> 2000 mg/kg bw	Species:	Method:
			Rat.	OECD Guideline 425

Data obtained by analogy conclusion

Acute dermal toxicity	LD50:	> 5000 mg/kg bw	Species:	Method:
			Rat.	OECD Guideline 402

Data obtained by analogy conclusion

Acute inhalation toxicity	LC50:	> 0.527 mg/L (4-h)	Species:	Method:
			Rat.	OECD Guideline 403

(maximum achievable concentration)

Data obtained by analogy conclusion

**Assessment / classification:**

Based on available data, the classification criteria are not met

**Irritant and corrosive effects**
**Irritation to the skin**

Equivalent/similar to OECD guideline 404	Result	Species:	
Primary dermal Irritation Index (PDII): 0 of max. 5 (mean) (Time point: 1, 24, 48, 72h)	non-irritant.	Rabbit.	Data obtained by analogy conclusion

**Irritation to eyes**

OECD Guideline 437	Result	Species:	
OECD Guideline 405	non-irritant.	In vitro study	

Assessment / classification:	Irritant	Rabbit.	
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Mildly irritating to eyes, category 2B: Causes eye irritation.

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## Respiratory or skin sensitisation

## Skin sensitization

Result

Species:

## OECD Guideline 429

not sensitising.

Mouse.

## Respiratory sensitisation

No information available.

## Assessment / classification:

Based on available data, the classification criteria are not met

## Genetic effects

*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:

Overall assessment of data, indicates that sodium nitrate is not genotoxic *in vitro* and *in vivo*.

Based on available data, the classification criteria are not met

## Reproductive toxicity

No reliable data available for sodium nitrate. Data obtained from chemically related substance.

## Adverse effects on sexual function and fertility

## OECD guideline 422.

NOAEL(C):

1500 mg/kg/d

Rat.

## Adverse effects on developmental toxicity

## OECD guideline 422.

NOAEL(C):

1500 mg/kg/d

Rat.

At the highest dose tested, no effects on fertility or development were observed in this repeated dose toxicity study. Data from other nitrate substances are in line with this study.

## Assessment / classification:

Based on available data, the classification criteria are not met

## Specific target organ toxicity (single exposure)

## Practical experience / human evidence

No relevant effect have been observed after single exposure to sodium nitrate.

## Assessment / classification:

Based on available data, the classification criteria are not met

## Specific target organ toxicity (repeated exposure)

Several oral repeated dose studies with sodium nitrate are available, however, most of them lack of reliability.

A reliable study with potassium nitrate did not show effects at highest dose tested.

## OECD guideline 422.

Effect dose:

Organs affected:

NOAEL(C):

1500 mg/kg bw/day

None

## Assessment / classification:

Based on available data, 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

No substance related neoplastic lesions were observed in a chronic toxicity study (literature information)

## International Agency for Research on Cancer (IARC)

Inadequate animals and humans evidence

## National Toxicology Program (NTP)

Not listed

## 29 CFR part 1910, subpart Z

Not listed

## California Proposition 65

Not listed

## WHO (2003) Nitrate in drinking water

No association between nitrate exposure in humans and the risk of cancer

## Assessment / classification:

Based on available data, the classification criteria is 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

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

### Ecotoxicity

#### Aquatic Toxicity

96-h LC50	6000 mg/L	freshwater fish	(literature information)
96-h LC50	4400 mg/L	marine water fish	(literature information)
24-h EC50	8600 mg/L	<i>Daphnia magna</i> (fresh water flea).	(literature information)
10 d EC50	> 1700 mg/L	Several algae species	(literature information)
		Data obtained by analogy conclusion	

### Assessment / classification

Based on available data, the classification criteria are not met

### Persistence and degradability

In aqueous compartments, the substance 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

Sodium nitrate has a low potential for bioaccumulation based on physicochemical properties (high water solubility).

### 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](http://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.	1498
UN Proper Shipping Name	SODIUM NITRATE
Hazard class	5.1
Packing group	III
Hazard label(s)	5.1 (oxidizer)
Special marking	No
Special Provision	A1; A29; I88; IP3; T1; TP33; W1

### International Maritime Organization (IMDG Code)

UN-No.	1498
UN Proper Shipping Name	SODIUM NITRATE
Hazard class	5.1
Packing group	III
Marine pollutant	No
Hazard label(s)	5.1 (oxidizer)
Special marking	No
Special Provision	964



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

UN-No. 1498  
 UN Proper Shipping Name SODIUM NITRATE  
 Hazard class 5.1  
 Packing group III  
 Hazard label 5.1 (oxidizer)  
 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	Yes (Oxidizer)
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	OX

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

Sodium nitrate is not listed

**California Code of Regulations Title 22 (Health & Safety Code), Chapter 33**See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate/>**Canada****Ingredient Disclosure List:**

Sodium nitrate is listed

**WHMIS Classification:**

Class C (Oxidizer), D2B (Eye Irritation)

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

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

Hazard classes and Hazard categories	Hazard statements
Ox. Sol. 3	H272
Eye Irrit. 2	H319

**Chemical Inventories****United States TSCA**

Sodium nitrate is listed

**Canada DSL**

Sodium nitrate is listed

**México (INSQ)**

Sodium nitrate is listed

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**Chemical Inventories (cont.)**

European Union (EINECS)

Sodium nitrate is listed

China (IECS)

Sodium nitrate is listed

Japan (METI)

Sodium nitrate is listed

Korea (KECI)

Sodium nitrate is listed

**16. OTHER INFORMATION**

This SDS complies with 29 CFR part 1910 subpart Z (2012), Canada Controlled Products Regulations (2010) and ANSI Standard Z400.1-2004

Data source

Sodium nitrate REACH (EC) Registration Dossier

Prepared by

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January 2013

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**Indication of changes**

- Version 4 (January 2014) Revised version. Section 15: Additional regulatory information. Section 16: Data source was added (January 2013) New version. All sections were reviewed and modified to comply with 29CFR part 1910 subpart Z (2012).
- Version 3 (March 2012) All sections were reviewed, contents were updated and format was changed.