

# SAFETY DATA SHEET

**PRODUCT NAME** ALLGANIC POTASSIUM

Product Code: 005a\_01.2\_USA

Date of issue: January 2019



## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product identifier** ALLGANIC™ Potassium  
ALLGANIC™ Potassium Sulfate of Potash Water Soluble 0-0-52  
Potassium sulfate, Standard Grade, Crystallized

**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 the US 29CFR §1910.1200 (2012) and Canada Hazardous Products Regulations (HPR, 2015).

Not classified as hazardous.

**Label elements**

**Hazard pictograms** None applicable

**Signal word** None applicable

**Hazard Statements** None applicable

**Precautionary Statements** None applicable

**Other hazards**

None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance name	CAS No	EC No	Concentration
Potassium sulfate	7778-80-5	231-915-5	> 94%

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

Call a POISON CENTER or doctor/physician if you feel unwell.

**In case of skin contact**

Rinse skin with water/shower. 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 occurs: Get medical advice/attention.

**In case of ingestion**

Rinse mouth and drink plenty of water.

Call a POISON CENTER or doctor/physician if you feel unwell.

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

The following symptoms may occur:

In case of inhalation May be irritant to the respiratory tract

In case of skin contact May cause skin irritation

In case of eye contact May cause eye irritation

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

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## 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.

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

### Specific hazards arising from the chemical

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

Thermal decomposition products: Sulfur oxides fumes by extreme heating.

### Protective equipment and precautions for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Provide adequate ventilation. Wear personal protection equipment.

### Environmental precautions

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

### Methods for containment and cleaning up

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

Unsuitable material for taking up: None specified

### Other information

None

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid generation of dust. Provide adequate ventilation. Wear personal protective equipment, when required.

Do not breathe dust. Wash hands before breaks and at the end of workday.

Do not eat, drink or smoke when using this product.

Keep away from food, drink and animal feeding stuff. Good hygiene practices and housekeeping measures.

### Conditions for safe storage, including any incompatibilities

Reseal carefully any opened container and set upright to avoid leakages.

Keep/store only in original container. Keep the product tightly closed in a dry, in well-ventilated and cool place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

#### Occupational exposure limits

Potassium sulfate:

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 :	21.3 mg/kg bw/day (systemic)
DNEL Human, inhalation, long term:	37.6 mg/m <sup>3</sup> /day (systemic)

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

### Engineering controls

Containment as appropriate. Good standard of general ventilation. Effective contaminant extraction.

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### Personal protective equipment

Eye / face protection

Chemical goggles.

Hand protection

Nitrile rubber gloves, suggested but not required to control risk.

Respiratory protection

Dust mask required in dusty environments or exceeding total dust limits.

### Environmental exposure controls

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

### General Hygiene Considerations

Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Solid crystalline	
Colour	White (crystalline)	
Odour	Odourless	
Odour Threshold	Not applicable	
Physical state	Solid	
pH value	4.5 – 8.5 (5% aqueous solution)	
Melting point / freezing point	1067°C / 1953°F at 1013 hPa	(Literature information)
Boiling temperature / boiling range	1689°C / 3072°F at 1013 hPa	(Literature information)
Flash point	Not applicable	
Vapourisation rate / Evaporation rate	Non volatile	
Flammability	Non flammable	(Based on chemical structure)
Explosion limits (LEL, UEL)	Not applicable	
Vapour pressure	Not applicable	
Vapour density	No data available	
Density (bulk)	1.32 ton (metric)/m <sup>3</sup>	
Solubility	11 g / 100 cm <sup>3</sup> at 20°C / 68°F (water)	
Partition coefficient n-octanol /water	Not applicable	(Based on chemical structure)
Auto Ignition temperature (AIT)	Not applicable	
Decomposition temperature	Not available	
Viscosity	Not applicable	
Explosive properties	Not explosive	(Based on chemical structure)
Oxidising properties	Not oxidising	(Based on chemical structure)
<b>Other information</b>		
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

None specific identified.

### Incompatible materials

None identified.

### Hazardous decomposition products

Sulfur oxides fumes by extreme heating

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## 11. TOXICOLOGICAL INFORMATION

### 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 or professional use.

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

May be irritant to the skin, eyes and the respiratory tract. Ingestion of large amounts may cause gastrointestinal disturbances.

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

#### Acute toxicity

Acute oral toxicity	LD50:	> 2000 mg/kg bw	Species: Rat.	Method: OECD Guideline 423
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Data obtained by analogy conclusion

Acute dermal toxicity	LD50:	> 2000 mg/kg bw	Rat.	OECD Guideline 402/EU B.3
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Assessment / classification: Based on available data, the classification criteria are not met

#### Irritant and corrosive effects

Primary irritation to the skin	Result:	Species:
EU Method B.46 ( <i>In vitro</i> skin irritation)	Not irritating	Not applicable
Irritation to eyes	Result:	Species:
OECD guideline 405	Not irritating	Rabbit (New Zealand White)

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

#### Respiratory or skin sensitisation

Skin sensitization	Method: OECD Guideline 429	Result: Not sensitising
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Data obtained by analogy conclusion

Respiratory sensitisation  
No information available.

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

#### Germ cell mutagenicity / Genotoxicity

<i>In-vitro</i> genotoxicity	Method:	Result:
Gene-mutations microorganisms	OECD Guideline 471	negative
Gene-mutations mammalian cells	OECD Guideline 476	negative

Data obtained by analogy conclusion

Chromosome aberrat. mammalian cells	OECD Guideline 473	negative
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Assessment / classification: Based on available data, the classification criteria are not met

#### Reproductive toxicity

Adverse effects on reproduction

OECD guideline 422	NOAEL:	≥ 1500 mg/kg bw/day
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No effects were found on reproduction parameters, neither embryotoxic or developmental effects at highest dose tested. In 90-d and one generation studies with chemically related substances, no effects on fertility were observed.

Developmental toxicity / teratogenicity

OECD guideline 422	NOAEL(development):	≥ 1500 mg/kg bw/day
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No effects were found on reproduction parameters, neither embryotoxic or developmental effects at highest dose tested. In 90-d and one generation studies with chemically related substances, no effects were observed.

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

#### Specific target organ toxicity (single exposure)

Practical experience / human evidence

No relevant effects have been described after single exposure to the substance.

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

#### Specific target organ toxicity (repeated exposure)

OECD guideline 422	NOAEL(C):	> 1500 mg/kg bw/day
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No effects were observed at highest dose tested.

Equivalent or similar to OECD guideline 453	NOAEL(C):	256 mg/kg bw/day (male, rat)
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Data obtained by analogy conclusion (ammonium sulphate)

Absolute spleen weights were decreased and relative liver weights were increased in high dose males.

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

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### Aspiration hazard

Physicochemical and toxicological data does not indicate a potential aspiration hazard.

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

### Carcinogenicity

There is no evidence of carcinogenicity or genotoxicity with potassium sulphate. No evidence of a carcinogenic potential was observed in a study equivalent or similar to OECD guideline 453 with ammonium sulphate.

International Agency for Research on Cancer (IARC) Not listed

National Toxicology Program (NTP) Not listed

29 CFR part 1910, subpart Z Not listed

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

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Aquatic toxicity

96-h LC50	680 mg/L	Fish ( <i>Pimephales promelas</i> )	(US EPA Guideline EPA/600/4-90/027)
48-h EC50	720 mg/L	<i>Daphnia magna</i> (Big water flea).	(US EPA Guideline EPA/600/4-90/027)
18-d EC50	> 100 mg/L	<i>Chlorella vulgaris</i>	(literature information)
3-h EC50	> 100 mg/L	Aquatic micro-organisms	Data obtained by analogy conclusion Conclusion obtained by structural analysis and intended use

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

### Persistence and degradability

In aqueous solution, potassium sulphate is completely dissociated into the potassium ion ( $K^+$ ) and the sulfate anion ( $SO_4^{2-}$ ).

Hydrolysis of potassium sulfate does not occur. Due to the inorganic nature of the substance standard testing systems are not applicable.

### Bioaccumulative potential

Potassium sulfate completely dissociate in water forming potassium ions and sulfate anions. Potassium sulfate has a low potential for bioaccumulation based on physicochemical properties.

### Mobility in soil

Based on the high water solubility and the ionic nature, potassium sulphate is not expected to adsorb, however, due to ion exchange process, sulfates can be retained in soil, both by incorporation into organic matter (e. g. as sulfate esters of humic acids) and adsorbed to soil particles such as hydrous iron and aluminum sesquioxides.

### Other adverse effects

None specified.

## 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.

Potassium sulfate is not listed as a dangerous waste in Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

## 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	Not applicable
Special Provision	Not applicable

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### 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 Not applicable  
Special Provision Not applicable

### 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

### Transport in bulk according to the International Maritime Solid bulk Cargoes (IMSBC) Code 2013 ed.

POTASSIUM SULFATE, Group C. No special hazard. No special requirements.

### Other special precautions

None

## 15. REGULATORY INFORMATION

### US Federal

#### SARA Title III Rules

##### Section 311/312 Hazard Classes

Acute Health Hazard No

Chronic Health Hazard No

Fire Hazard No

Release of Pressure No

Reactive Hazard No

#### Section 313 Toxic Chemicals

No components listed

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

No components listed

#### NFPA 704/2017: National Fire Protection Association

Health 0

Fire 0

Instability 0

Special None

### US State Regulations

California Proposition 65 No components listed

### Canada

This product is not classified as hazardous 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]

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### Chemical Inventories

United States TSCA	Listed
Canada DSL	Listed
European Union (EINECS)	Listed
China (IECS)	Listed
Japan (METI)	Listed
Korea (KECI)	Listed

## 16. OTHER INFORMATION

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

**Data source** Potassium sulfate REACH (EC) Registration Dossier

**Prepared by** Regulatory Affairs Department, SQM

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**Date of issue:** January 2019 **Supersedes** October 2016

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### Indication of changes

- Version 1.2 (January 2019) All sections were reviewed and minor changes were introduced in sections 1, 8, 9, 15. Granular grade was removed (section 1, 9)
- Version 1.1 (October 2016) All sections were reviewed and minor changes were introduced in sections 2, 3, 9, 15. Document code has been changed Product names were added (section 1) Information for transport in Bulk was added (section 14).
- Version 1 (July 2013) New document