

1. Product and Company Identification

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Product Name GUANIDINE NITRATE

Part Number RXSOL-60-6606-555

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2. Composition / Information on ingredients

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Chemical Name	Cas No	EC No	Weight	Formula
Guanidinium nitrate	506-93-4	208-060-1	122,08 g/mol	CH ₅ N ₃ · HNO ₃

3. Hazards Identification

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Signal Word

Hazard Statements

Precautionary statements

Classification of the substance or mixture

Supplemental Hazard Statements

Other hazards

Warning

H272 May intensify fire; oxidizer. H302 Harmful if swallowed. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep away from clothing and other combustible materials. P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

None

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

4. First Aid Measures

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General advice

If inhaled

Eye Contact

Swallowed

Skin Contact

Inhalation

Show this material safety data sheet to the doctor in attendance.

After inhalation fresh air.

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

After swallowing immediately make victim drink water (two glasses at most). Consult a physician.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Fresh air.

Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed	No data available

5. Fire-fighting Measures

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Flammability	May be combustible at high temperature.
Suitable extinguishing media	Water Foam Carbon dioxide (CO ₂) Dry powder
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture	Carbon oxides Nitrogen oxides (NO _x) Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. Has a fire-promoting effect due to release of oxygen.
Further information	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Hazardous combustion products	Fire may cause the evolution of Sulphur oxides, nitrogen oxides.
Advice for firefighters	In the event of fire, wear self-contained breathing apparatus.
Protective Equipment	Use personal protective equipment.

6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8
Spillage	No data available
Environmental Precaution	Do not let product enter drains.
Methods and materials for containment and cleaning	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

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Advice on protection against fire and explosion	Keep away from open flames, hot surfaces and sources of ignition
Hygiene measures	Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance. For precautions see section 2.2.
Advice on safe handling	For precautions see section 2.2.
Storage conditions	Tightly closed. Away from combustible materials and sources of ignition and heat. Do not store near combustible materials.
Storage class	Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls and personal protection

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Exposure controls	Personal Protective Equipment
Engineering Control	No data available
Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly

Body Protection

Skin protection

fitting safety goggles

Protective clothing

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested: KCL 741 Dermatril® L

Respiratory protection

Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P2 The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Other Protection Measure

No data available

Control of environmental exposure

No data available

9. Physical and chemical properties

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Physical state

Solid

Colour

No data available

Odour

No data available

Odor Threshold

No data available

pH

No data available

Melting Point

213 - 215 °C

Boiling Point

No data available

Flash Point

No data available

Evaporation Rate

No data available

Flammability (solid, gas)

No data available

Explosive limits

No data available

Upper/lower flammability or explosive limits

No data available

Autoignition temperature

No data available

Decomposition temperature

No data available

Vapour pressure

No data available

Viscosity

No data available

Density

1,44 g/cm³ at 20 °C

Relative Density

No data available

Specific Gravity

No data available

Partition coefficient

No data available

Explosive properties

No data available

Solubility

No data available

Ignition temperature

No data available

Particle characteristics

No data available

10. Stability and reactivity

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Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with: Halogenated hydrocarbon Potassium nitrates

Conditions to avoid
Incompatible materials
Hazardous decomposition products

sulfur Exothermic reaction with: Risk of ignition or formation of inflammable gases or vapours with: combustible substances Bases acids
No data available
No data available
In the event of fire: see section 5

11. Toxicological information

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Acute toxicity

LD50 Oral - Rat - female - 730 mg/kg (US-EPA) Oral: absorption LC50 Inhalation - Rat - male and female - 4 h - > 0,853 mg/l - dust/mist(OECD Test Guideline 403) Symptoms: Possible damages:, mucosal irritations Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration. LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg (US-EPA)

Skin corrosion/irritation
Serious eye damage/irritation
Respiratory or skin sensitization

Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
Eyes - Rabbit Result: Eye irritation (US-EPA)

Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative

Carcinogenicity
Germ cell mutagenicity

No data available

Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative

Reproductive toxicity
Specific target organ toxicity - single exposure
Additional Information

No data available

No data available

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large quantities. Further data: Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

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Persistence and degradability
Toxicity to fish
Toxicity to daphnia and other aquatic invertebrates
Toxicity
Toxicity to bacteria
Toxicity to algae
Products Biodegradation
Mobility in soil

No data available

LC50 - Pimephales promelas (fathead minnow) - 690 mg/l - 96 h Remarks: (IUCLID)

static test EC50 - Daphnia magna (Water flea) - 70,2 mg/l - 48 h (OECD Test Guideline 202)

No data available

Static test EC10 - Pseudomonas putida - 832 mg/l - 18 h (DIN 38421 TEIL 8)

Static test EC50 - Pseudokirchneriella subcapitata (green algae) - 11,8 mg/l - 72 h (Directive 67/548/EEC, Annex V, C.3.)

No data available

No data available

Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher
Other adverse effects	Discharge into the environment must be avoided.

13. Disposal considerations

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Product	See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.
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14. Transport information

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UN number	ADR/RID:1467	IMDG:1467	IATA:1467
UN proper shipping name	ADR/RID:GUANIDINE NITRATE	IMDG:GUANIDINE NITRATE	IATA:GUANIDINE NITRATE
Transport hazard class(es)	ADR/RID:5.1	IMDG:5.1	IATA:5.1
Packaging group	ADR/RID:III	IMDG:III	IATA:III
Environmental hazards	ADR/RID:No	IMDG:No	IATA:No
Special precautions for user	Tunnel restriction code : (E)		
Further information	No data available		

15. Regulatory information

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Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Other regulations	Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out

16. Other information

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Other Information	<p>The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.</p> <p>DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or 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 the handling, storage, use or</p>
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disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.