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Safety Data Sheet

Trilon® M Granules SG T

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Version: 5.1

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(30640597/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Trilon® M Granules SG T

Recommended use of the chemical and restriction on use

Recommended use*: complexing agents

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family:	unspecified
Synonyms:	Complexing Agent

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

The product does not require a hazard warning label in accordance with GHS criteria.

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Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

Labeling of special preparations (GHS):

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 84 - 86 %

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

The product contains:

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
5064-31-3	>= 0.1 - < 0.2%	trisodium nitrilotriacetate

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

If on skin:

Wash thoroughly with soap and water.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Rinse mouth and then drink plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms: Further symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:	Treat according to symptoms (decontamination, vital functions), no known specific antidote.
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5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
dry powder, foam

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Unsuitable extinguishing media for safety reasons:
carbon dioxide

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures see, section 8.

Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Contain with dust binding material and dispose of.

Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

Avoid dust formation. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4541, Stainless steel 1.4571, Stainless steel 1.4439, Stainless steel 1.4301 (V2), Stainless steel 1.4401, Stainless steel 1.4539, Stainless steel 1.4361, Paper/Fibreboard

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Sodium Hydroxide OSHA PEL PEL 2 mg/m³ ; CLV 2 mg/m³ ;

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ACGIH TLV CLV 2 mg/m³ ;

Advice on system design:

Ensure adequate ventilation.

Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Wear a NIOSH approved (or equivalent) particulate respirator if ventilation is inadequate to control dust.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Wearing of closed work clothing is required additionally to the stated personal protection equipment. No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	granules	
Odour:	product specific	
Odour threshold:	No data available.	
Colour:	slightly yellowish	
pH value:	10.5 - 12.5 (10 g/l, 23 °C)	(DIN 19268)
Melting point:	The substance / product decomposes therefore not determined.	
decomposition point:	> 300 °C	(DIN EN ISO 3146)
Boiling point:	not determined	
Flash point:	not applicable, the product is a solid	
Flammability:	not flammable	
Lower explosion limit:	For solids not relevant for classification and labelling.	
Upper explosion limit:	For solids not relevant for classification and labelling.	
Autoignition:	not determined	
Vapour pressure:	6 hPa (approx. 25 °C) contains water	
Bulk density:	650 - 900 kg/m ³	(DIN ISO 697)
Vapour density:	not determined	
Partitioning coefficient n-octanol/water (log Pow):	<= -4 (25 °C)	(Directive 92/69/EEC, A.8)
Self-ignition temperature:	not self-igniting	
Viscosity, dynamic:	not applicable, the product is a solid	
Solubility in water:	approx. 600 g/l	

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Miscibility with water:	soluble
Evaporation rate:	The product is a non-volatile solid.
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:
Corrodes metals in the presence of water or moisture.

Oxidizing properties:
not fire-propagating

Chemical stability

Possibility of hazardous reactions

In spite of the dedusting carried out for reasons of industrial health a dust explosion hazard can not be excluded.

Conditions to avoid

See MSDS section 7 - Handling and storage.

Incompatible materials

amphoteric metals, light metals

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Oral

Type of value: LD50
Species: rat
Value: > 2,000 mg/kg (Guideline 92/69/EEC, B.1)

Inhalation

Type of value: LC50
Species: rat
Value: > 5 mg/l
Exposure time: 4 h

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Dermal

Type of value: LD50
Species: rat
Value: > 2,000 mg/kg (OECD Guideline 402)

Skin

Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Eye

Species: rabbit
Result: non-irritant
Method: OECD Guideline 405

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Guinea pig maximization test
Species: guinea pig
Method: OECD Guideline 406

Aspiration Hazard

not applicable

Chronic Toxicity/Effects

Repeated dose toxicity

Experimental/calculated data: OECD Guideline 453 rat (male) oral feed
NOAEL: 262 mg/kg

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance induced chromosomal aberrations in a mammalian cell culture test. At high concentrations the chelating properties interfere with the essential cation concentrations in the culture medium and within the cells. The substance was not mutagenic in a test with mammals.
Genetic toxicity in vitro: OECD Guideline 471 Ames-test negative
OECD Guideline 472 Ames-test negative
OECD Guideline 473 Cytogenetic assay The genotoxic effect shown in vitro was not confirmed in vivo.
OECD Guideline 476 HGPRT assay with and without metabolic activation negative
Genetic toxicity in vivo: OECD Guideline 474 Micronucleus assay negative

Carcinogenicity

Assessment of carcinogenicity: In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed.

Information on: trisodium nitrilotriacetate

Assessment of carcinogenicity: Indication of possible carcinogenic effect in animal tests.

IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).

Experimental/calculated data: OECD Guideline 453 rat oral feed
Result: negative

Reproductive toxicity

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Assessment of reproduction toxicity: The results were determined in a Screening test (OECD 421/422).

Development

OECD Guideline 414 rat oral feed
NOAEL Teratog.: 1,000 mg/kg

Symptoms of Exposure

Further symptoms and / or effects are not known so far

12. Ecological Information

Toxicity

Toxicity to fish

LC50 (96 h) > 100 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 84/449/EEC, C.1)

Aquatic invertebrates

EC50 (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1)

Aquatic plants

EC50 (72 h) > 100 mg/l (growth rate), Scenedesmus subspicatus (Guideline 92/69/EEC, C.3, static)
Limited influence on algae growth due to chelate formation.

Chronic toxicity to fish

No observed effect concentration (28 d) \geq 100 mg/l, Oncorhynchus mykiss (OECD Guideline 204, Flow through.)
Nominal concentration.

Chronic toxicity to aquatic invertebrates

No observed effect concentration \geq 100 mg/l, Daphnia magna (OECD Guideline 202, part 2)

Soil living organisms

Toxicity to soil dwelling organisms:
LC50 (14 d), Eisenia foetida (OECD Guideline 207, artificial soil)
The details of the toxic effect relate to the nominal concentration.

Toxicity to terrestrial plants

EC50 (19 d) 794 mg/kg, Avena sativa (OECD Guideline 208)

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 aerobic
activated sludge, domestic/EC20 (0.5 h): > 1,000 mg/l

Persistence and degradability

Elimination information

> 80 % BOD of COD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) Readily biodegradable (according to OECD criteria).

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80 - 90 % TIC of the ThIC (60 d) (OECD guideline 311) (anaerobic)

Bioaccumulative potential

Bioaccumulation potential

No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Additional information

Add. remarks environm. fate & pathway:

Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

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BASF Risk Assessment, CA Prop. 65:

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

NFPA Hazard codes:

Health: 1 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 1 Flammability: 1 Physical hazard: 0

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2018/09/24

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