

Safety data sheet

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BASF Safety data sheet

Date / Revised: 14.08.2025

Product: **Nodulator Granule Group E**

Version: 1.0

(30849316/SDS_GEN_AU/EN)

Date of print: 15.08.2025

1. Substance/preparation and manufacturer/supplier identification

Product name:

Nodulator Granule Group E

Use: Seed coating

Manufacturer/supplier:

BASF Australia Limited (ABN 62 008 437 867)

Level 23, 40 City Road, Southbank

Victoria 3006, AUSTRALIA

Telephone: +61 3 8855-6600

Emergency information:

BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]

BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

2. Hazard identification

Classification of the substance and mixture:

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

Label elements and precautionary statement:

Precautionary Statement:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

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

Other hazards which do not result in classification:

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

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Micro-organisms may have the potential to provoke sensitising reactions.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

Contains: biological beneficial organism
, *Rhizobium leguminosarum* bv *viciae* strain WSM4643

does not contain: Genetically modified organism

Hazardous ingredients

Palygorskite ($[\text{Mg}(\text{Al}_{0.5-1}\text{Fe}_{0-0.5})]\text{Si}_4(\text{OH})\text{O}_{10}\cdot 4\text{H}_2\text{O}$)
Content (W/W): < 40 %
CAS Number: 12174-11-7

Plaster of Paris ($\text{Ca}(\text{SO}_4)\cdot 1/2\text{H}_2\text{O}$)
Content (W/W): < 30 %
CAS Number: 26499-65-0

Limestone
Content (W/W): < 5 %
CAS Number: 1317-65-3

4. First-Aid Measures

General advice:
Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air.

On skin contact:
Wash thoroughly with soap and water

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

On ingestion:
Rinse mouth and then drink 200-300 ml of water.

Note to physician:
Symptoms: (Further) symptoms and / or effects are not known so far
Hazards: (Further) symptoms and / or effects are not known so far
Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Suitable extinguishing media:
water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons:
carbon dioxide

Specific hazards:
carbon monoxide, carbon dioxide, nitrogen oxides
The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:
Avoid dust formation. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions:
Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:
For small amounts: Contain with dust binding material and dispose of.
For large amounts: Sweep/shovel up.
Avoid raising dust. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

7. Handling and Storage

Handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:
No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Storage

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect against moisture. Protect from direct sunlight.

Storage stability:

Storage duration: 24 Months

8. Exposure controls and personal protection

Components with occupational exposure limits

Limestone, 1317-65-3;

TWA value 10 mg/m³ (ACGIHTLV), Inhalable particles

TWA value 3 mg/m³ (ACGIHTLV), Respirable particles

TWA value 10 mg/m³ (AU NOEL), Inhalable dust

Where no specific exposure standard has been assigned and the substance is both of inherently low toxicity and free from toxic impurities, exposure to dusts should be maintained below 10 mg/m³, measured as inhalable dust (8-hour TWA).

Plaster of Paris (Ca(SO₄).1/2H₂O), 26499-65-0;

TWA value 10 mg/m³ (ACGIHTLV), Inhalable particles

TWA value 3 mg/m³ (ACGIHTLV), Respirable particles

TWA value 10 mg/m³ (AU NOEL), Inhalable dust

Where no specific exposure standard has been assigned and the substance is both of inherently low toxicity and free from toxic impurities, exposure to dusts should be maintained below 10 mg/m³, measured as inhalable dust (8-hour TWA).

TWA value 10 mg/m³ (ACGIHTLV), Inhalable fraction

TWA value 10 mg/m³ (AU NOEL), Inhalable dust

This value is for inhalable dust containing no asbestos and < 1% crystalline silica.

Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Suitable respiratory protection for higher concentrations or long-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

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Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	solid, granules
Colour:	grey
Odour:	mild
Odour threshold:	Not determined due to potential health hazard by inhalation.

pH value:	approx. 6 - 7 (1 %(m), 20 °C)
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Melting point:	The product has not been tested.
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Boiling point:	The product has not been tested.
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Flash point:	not applicable, the product is a solid
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Evaporation rate:	not applicable
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Flammability (solid/gas):	Based on the structure or composition there is no indication of flammability
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Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
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Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
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Ignition temperature:	not applicable, the product is a solid
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Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
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Self ignition:	Based on its structural properties the product is not classified as self-igniting.
Self heating ability:	It is not a substance capable of spontaneous heating.
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.
Vapour pressure:	not applicable
Bulk density:	200 - 1,200 kg/m ³
Relative vapour density (air):	not applicable
Solubility in water:	insoluble
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures
Viscosity, dynamic:	not applicable, the product is a solid
Viscosity, kinematic:	not applicable, the product is a solid

10. Stability and Reactivity

Conditions to avoid:
See SDS section 7 - Handling and storage.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
strong acids, strong bases, strong oxidizing agents

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

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

Chemical stability:
The product is stable if stored and handled as prescribed/indicated.

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

11. Toxicological Information

Routes of exposure

Assessment of acute toxicity

Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion. The product has not been tested. The statement has been derived from the properties of the individual components.

Symptoms

(Further) symptoms and / or effects are not known so far

Irritation

Assessment of irritating effects:

Not irritating to eyes and skin. The product has not been tested. The statement has been derived from the properties of the individual components.

Respiratory/Skin sensitization

Assessment of sensitization:

No sensitizing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Germ cell mutagenicity

Assessment of mutagenicity:

Mutagenicity tests revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity

Assessment of carcinogenicity:

The results of various animal studies gave no indication of a carcinogenic effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Developmental toxicity

Assessment of teratogenicity:

Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals. The product has not been tested. The statement has been derived from the properties of the individual components.

Specific target organ toxicity (single exposure)

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

No substance-specific organotoxicity was observed after repeated administration to animals. The product has not been tested. The statement has been derived from the properties of the individual components.

Aspiration hazard

not applicable

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

Mobility

Assessment transport between environmental compartments:
not applicable

Persistence and degradability

Assessment biodegradation and elimination (H₂O):
not applicable

Bioaccumulation potential

Assessment bioaccumulation potential:
not applicable

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal Considerations

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Domestic transport:

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Sea transport

IMDG

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
	Marine pollutant: no
Special precautions for user	None known

Air transport

IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
Proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Not Scheduled

Registration status:

AICIS, AU

Contains non-registered, non-listed substance., Individual registration may be required., Please contact your BASF representative.

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.