

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

NovaTec 46-0-0



Version: 1.3
Date of last issue: 23.12.2022
Date of first issue: 07.05.2019

Revision Date:
07.04.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : NovaTec 46-0-0

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Fertilizer

1.3 Details of the supplier of the safety data sheet

Company : COMPO EXPERT GmbH
Krögerweg 10
D-48155 Münster

Telephone : +49 (0) 251 29 79 81 – 000

Telefax : +49 (0) 251 29 79 81 - 111

E-mail address of person responsible for the SDS : info@compo-expert.com

1.4 Emergency telephone number

GBK GmbH - Global Regulatory Compliance - 24h
Telephone: +49 (0) 6132 - 84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

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

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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

2.3 Other hazards

According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

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Chemical nature : Fertilizer
fertilizer contains:
Urea
Contains
1H-Pyrazole, 3,4-dimethyl-,phosphate (1:1)

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Borates, tetra sodium salts, pentahydrate	12179-04-3 215-540-4 01-2119490790-32-XXXX	Repr. 1B; H360FD Eye Irrit. 2; H319	<= 0,5

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

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

In case of skin contact : Wash off with soap and water.
If irritation develops, seek medical attention.

In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Irritation
Redness
Nausea
Vomiting

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Product does not burn, fire-extinguishing activities according to surrounding.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Fire may cause evolution of:
carbon monoxide
ammonia
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : Do not empty into drains.
Retain and dispose of contaminated wash water.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Protect from contamination.
Keep away from direct sunlight.
Protect against heat.
Protect from moisture.

Advice on protection against fire and explosion : The product is not flammable. Keep away from heat and sources of ignition. Keep away from combustible materials.

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Hygiene measures : At the end of the shift the skin should be cleaned and skin-care agents applied.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep away from heat. Keep away from sources of ignition - No smoking. Keep away from combustible material. Protect from contamination. When stored loose do not mix with other fertilizers. Protect against humidity (product is hygroscopic and tends to cake or disintegrate)

Storage class (TRGS 510) : 11, Combustible Solids

7.3 Specific end use(s)

Specific use(s) : Not relevant

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Borates, tetra sodium salts, pentahydrate	12179-04-3		3 mg/m ³	DE TRGS 900
Peak-limit: excursion factor (category)	8;(II)			
Further information	Commission for dangerous substances, The threshold value is based on the element content of the corresponding metal., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		AGW	0,5 mg/m ³ (Borate)	DE TRGS 900
Peak-limit: excursion factor (category)	2;(I)			
Further information	Commission for dangerous substances, The threshold value is based on the element content of the corresponding metal., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
			1 mg/m ³	ACGIHTLV
		TWA	1 mg/m ³	GB EH40

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

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Substance name	End Use	Exposure routes	Potential health effects	Value
NovaTec 46-0-0	Workers	Skin contact		580 mg/kg
	Consumers	Inhalation		125 mg/m3
	Consumers	Ingestion		42 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
NovaTec 46-0-0	Fresh water	0,047 mg/l

8.2 Exposure controls

Personal protective equipment

Eye protection : Tightly fitting safety goggles (splash goggles) (EN 166)

Hand protection

Remarks : Chemical resistant protective gloves (EN 374). butyl rubber (butyl) - 0.7 mm coating thickness chloroprene rubber (CR) - 0.5 mm coating thickness polyvinylchloride (PVC) - 0.7 mm coating thickness

Skin and body protection : Wearing of closed work clothing is recommended.

Respiratory protection : respiratory protection only if aerosol or dust is formed.

Particle filter EN 143 Type P1, low efficiency, (solid particles of inert substances).

Environmental exposure controls

General advice : Do not empty into drains.
Retain and dispose of contaminated wash water.

SECTION 9: Physical and chemical properties

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9.1 Information on basic physical and chemical properties

Physical state	: granular
Colour	: violet
Odour	: faint odour, ammoniacal
pH	: ca. 9 - 10, Concentration: 100 g/l (20 °C)
Melting point/range	: ca. 133 °C
Boiling point/boiling range	: Not applicable
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: not highly flammable
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapour pressure	: < 0,01 kPa
Density	: 1,33 g/cm ³ (20 °C)
Bulk density	: ca. 780 - 830 kg/m ³
Solubility(ies)	
Water solubility	: ca. 590 g/l soluble (20 °C)
Partition coefficient: n-octanol/water	: log Pow: ca. -1,59
Auto-ignition temperature	: Not applicable
Decomposition temperature	: ca. 133 °C To avoid thermal decomposition, do not overheat.
Viscosity	
Viscosity, dynamic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Not considered an oxidizing substance

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9.2 Other information

Molecular weight : 60,06 g/mol

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : Avoid electro-static charge.

10.5 Incompatible materials

Materials to avoid : Nitrites
nitrates

10.6 Hazardous decomposition products

Hazardous decomposition products : ammonia
Ammonia gas may be liberated at high temperatures.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat): 14.300 mg/kg

Components:

Borates, tetra sodium salts, pentahydrate:

Acute oral toxicity : LD50 (Rat): 3.200 - 3.400 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 2,0 mg/l
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

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Skin corrosion/irritation

Product:

Species: Rabbit
Method: OECD Test Guideline 404
Result: non-irritant

Components:

Borates, tetra sodium salts, pentahydrate:

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Product:

Species: Rabbit
Method: OECD Test Guideline 405
Result: non-irritant

Components:

Borates, tetra sodium salts, pentahydrate:

Species: Rabbit
Assessment: Irritant
Result: Moderate eye irritation

Respiratory or skin sensitisation

Product:

Result: non-sensitizing

Components:

Borates, tetra sodium salts, pentahydrate:

Test Type: Buehler Test
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.

germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: Contains no hazardous ingredients according to GHS

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Components:

Borates, tetra sodium salts, pentahydrate:

Germ cell mutagenicity- : In vitro tests showed mutagenic effects
Assessment

Carcinogenicity

Product:

Remarks: Contains no ingredient listed as a carcinogen

Components:

Borates, tetra sodium salts, pentahydrate:

Carcinogenicity - : Carcinogenicity classification not possible from current data.
Assessment

Reproductive toxicity

Product:

Effects on fertility :
Remarks: No toxicity to reproduction

Effects on foetal : Remarks: Contains no ingredient listed as toxic to
development reproduction

Components:

Borates, tetra sodium salts, pentahydrate:

Reproductive toxicity - : In animal testing, risk of impaired fertility was shown only after
Assessment administration of very high doses of this substance.
May damage fertility. May damage the unborn child.

STOT - single exposure

Product:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Product:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Based on available data, the classification criteria are not met.

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11.2 Information on other hazards

Endocrine disrupting properties

No data available

Further information

No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

- | | |
|---|--|
| Toxicity to fish | : LC50 (golden orfe): 6.810 mg/l
Exposure time: 48 h
Test Type: static test |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Daphnia (water flea)): > 10.000 mg/l
Exposure time: 48 h
Test Type: static test |
| Toxicity to algae | : (Scenedesmus quadricauda (Green algae)): > 10.000 mg/l
Exposure time: 8 h
Test Type: other |
| Toxicity to bacteria | : EC20 (Pseudomonas putida): ca. > 10.000 mg/l
Exposure time: 16 h
Test Type: other
Remarks: Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. |

Components:

Borates, tetra sodium salts, pentahydrate:

- | | |
|---|--|
| Toxicity to fish | : LC50 (dab): 74 mg/l
Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Daphnia magna (Water flea)): 242 mg/l
Exposure time: 24 h |
| Toxicity to algae | : EC10 (Scenedesmus subspicatus): 24 mg/l
Exposure time: 96 h |

12.2 Persistence and degradability

Product:

- | | |
|------------------|--|
| Biodegradability | : Remarks: Readily biodegradable, according to appropriate |
|------------------|--|

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OECD test.

Physico-chemical
removability

: DOC reduction
ca. 96 %

Remarks: May be eliminated in purification plants

12.3 Bioaccumulative potential

Product:

Bioaccumulation

: Remarks: Because of the n-octanol/water distribution
coefficient (log Pow) accumulation in organisms is possible.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment

: Remarks: No data available

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Product:

Additional ecological
information

: There is a high probability that the product is acute not
harmful to aquatic organisms.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

: Check if agriculture use is possible.
Contact manufacturer.

Contaminated packaging

: Contaminated packaging should be emptied as far as
possible; then it can be passed on for recycling after being
thoroughly cleaned.

SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

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14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not relevant

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Water contaminating class : WGK 1 slightly water endangering
(Germany)

15.2 Chemical Safety Assessment

SECTION 16: Other information

Full text of H-Statements

H319 : Causes serious eye irritation.

H360FD : May damage fertility. May damage the unborn child.

Full text of other abbreviations

Eye Irrit. : Eye irritation

Repr. : Reproductive toxicity

(Q)SAR - (Quantitative) Structure Activity Relationship; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; DIN - Standard of the German Institute for Standardisation; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International

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Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TRGS - Technical Rule for Hazardous Substances; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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