

NovaTec Solub 45



Version: 2.0

Revision Date:
01.06.2018

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

1.1 Product identifier

Trade name : NovaTec Solub 45

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

Use of the Sub-
stance/Mixture : Fertilizer

1.3 Details of the supplier of the safety data sheet

Company : COMPO EXPERT GmbH
Kroegerweg 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

Quality / Safety / Environment
Telephone: +49 (0) 2151 - 579 - 0

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

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

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Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
urea	57-13-6 200-315-5 01-2119463277-33-XXXX		< 100

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.

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 fire-fighting : 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.

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

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7.3 Specific end use(s)

Specific use(s) : Not relevant

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

Substance name	End Use	Exposure routes	Potential health effects	Value
NovaTec Solub 45	Workers	Skin contact		580 mg/kg
	Consumers	Inhalation		125 mg/m ³
	Consumers	Ingestion		42 mg/kg

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

Substance name	Environmental Compartment	Value
NovaTec Solub 45	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

9.1 Information on basic physical and chemical properties

Appearance : granular

Colour : various

Odour : faint odour, ammoniacal

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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

9.2 Other information

Molecular weight	: 60,06 g/mol
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SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

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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 toxicological effects

Acute toxicity

Product:

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

Components:

urea:

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

Skin corrosion/irritation

Product:

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

Serious eye damage/eye irritation

Product:

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

Respiratory or skin sensitisation

Product:

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Result: non-sensitizing

Germ cell mutagenicity

Product:

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

Carcinogenicity

Product:

Remarks: Contains no ingredient listed as a carcinogen

Reproductive toxicity

Product:

Effects on fertility : Remarks: No toxicity to reproduction

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

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.

Repeated dose toxicity

Components:

urea:

Species: Rat

NOAEL: 2.250 mg/kg

Application Route: Oral

SECTION 12: Ecological information

12.1 Toxicity

Product:

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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:

urea:

Toxicity to fish	: LC50 (Leuciscus idus (Golden orfe)): > 6.810 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 10.000 mg/l Exposure time: 24 h
Toxicity to algae	: (Scenedesmus quadricauda (Green algae)): > 10.000 mg/l Exposure time: 192 h

12.2 Persistence and degradability

Product:

Biodegradability	: Remarks: Readily biodegradable, according to appropriate 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.
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12.4 Mobility in soil

No data available

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12.5 Results of PBT and vPvB assessment

Product:

Assessment : Remarks: No data available

12.6 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

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks : Not relevant

SECTION 15: Regulatory information

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

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

15.2 Chemical Safety Assessment

SECTION 16: Other information

Full text of other abbreviations

(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 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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