

# Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

## NovaTec® Solub 10-0-32



Version: 1.8  
Date of last issue: 23.12.2022  
Date of first issue: 18.07.2016

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

#### 1.1 Product identifier

Trade name : NovaTec® Solub 10-0-32  
UFI : QXN5-801T-E009-7QCU

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

Use of the : Fertilizer  
Substance/Mixture

#### 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 : info@compo-expert.com  
responsible for the SDS

#### 1.4 Emergency telephone number

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

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

#### 2.2 Label elements

##### Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms

:



Signal word

: Warning

Hazard statements

: H315  
H319

Causes skin irritation.  
Causes serious eye irritation.

Precautionary statements

: P102  
**Prevention:**  
P280  
  
P284

Keep out of reach of children.  
  
Wear protective gloves/ protective clothing/  
eye protection/ face protection.  
In case of inadequate ventilation wear  
respiratory protection.

**Response:**

P301 + P312

IF SWALLOWED: Call a POISON CENTER  
or doctor/ physician 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.

Further information

:

German "Hazardous Substances" legislation (   
Gefahrstoffverordnung) appendix I, No. 5 (Ammonium  
Nitrate group C III)

### 2.3 Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature

: Mixture of nutrient salts based on various inorganic salts.  
Contains  
1H-Pyrazole, 3,4-dimethyl-,phosphate (1:1)

#### Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
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potassium nitrate	7757-79-1 231-818-8 01-2119488224-35-XXXX	Ox. Sol. 3; H272	>= 10 - <= 45
potassium hydrogensulphate	7646-93-7 231-594-1	Skin Corr. 1B; H314 STOT SE 3; H335	>= 1,1 - <= 1,8

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- If inhaled : Move to fresh air.  
Obtain medical attention.  
If unconscious place in recovery position and seek medical advice.  
In case of lung irritation, first treatment with dexametason aerosol (spray).
- In case of skin contact : Wash off with soap and water.
- 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 : Ingestion may provoke the following symptoms:  
Methaemoglobinemia
- Risks : Later control for pneumonia and lung oedema.

#### 4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.  
There is no specific antidote available.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- Suitable extinguishing media : Water

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Unsuitable extinguishing media : Foam  
Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Sand

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : At temperatures above 130 °C, dangerous decomposition gases can be emitted:  
Nitrogen monoxide, nitrogen dioxide, dinitrogenoxide, ammonia

### 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.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid dust formation.  
Ensure adequate ventilation.  
In case of insufficient ventilation, wear suitable respiratory equipment.

### 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.

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## 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.

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- 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)
- Further information on storage conditions : Protect against water. Keep away from direct sunlight.
- Storage class (TRGS 510) : 5.1C, Ammonium nitrate and ammonium nitrate containing preparations

### 7.3 Specific end use(s)

- Specific use(s) : Always read the label and product information before use.

## 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
potassium nitrate	Workers	Inhalation	Systemic effects	36,7 mg/m3
	Workers	Skin contact	Systemic effects	20,8 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Ingestion	Systemic effects	12,5 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Skin contact	Systemic effects	12,5 mg/kg
Remarks:	Exposure time: 1 d			
	Consumers	Inhalation	Systemic effects	10,9 mg/m3

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

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Substance name	Environmental Compartment	Value
potassium nitrate	Fresh water	0,45 mg/l
	Marine water	0,045 mg/l
	Ceiling Limit Value	4,5 mg/l
	Sewage treatment plant	18 mg/l

### 8.2 Exposure controls

#### Personal protective equipment

Respiratory protection : Particle filtering disposable mask DIN EN 149 with filter FFP2.

#### 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

Physical state : granular

Colour : various

Odour : very faint

Odour Threshold : No data available

pH : ca. 5 - 5,5, Concentration: 100 g/l (20 °C)

Melting point/range : No data available

Boiling point/boiling range : Not applicable

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : The product is not flammable.

Upper explosion limit : Not explosive

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Lower explosion limit	: Not explosive
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Bulk density	: ca. 1.150 kg/m <sup>3</sup>
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: Not applicable
Decomposition temperature	: > 130 °C To avoid thermal decomposition, do not overheat.
Viscosity	
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Not considered an oxidizing substance
<b>Particle characteristics</b>	
Particle Size Distribution	: D50 = 250 µm D50 Tolerance range = 200 µm - 300 µm Measurement technique: Sieve analysis

### 9.2 Other information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Evolution of ammonia under influence of alkalies.

### 10.4 Conditions to avoid

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Conditions to avoid : Protect from frost, heat and sunlight.  
Avoid moisture.

### 10.5 Incompatible materials

Materials to avoid : Sulphur, chlorites, chloride, chlorates, Hypochlorites, acid or alkaline reacting substances, flammable oxidizable substances, nitrites, metallic salts, metallic powder, herbicide, chlorinated hydrocarbons, organic compounds.

### 10.6 Hazardous decomposition products

Hazardous decomposition products : Nitrogen monoxide, nitrogen dioxide, dinitrogenoxide, ammonia

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## 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): > 2.000 mg/kg

##### Components:

##### **potassium nitrate:**

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0,527 mg/l

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg

##### **potassium hydrogensulphate:**

Acute oral toxicity : LD50 Oral (Rat): 2.340 mg/kg

#### Skin corrosion/irritation

##### Product:

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

##### Components:

##### **potassium nitrate:**

Species: Rabbit  
Result: No skin irritation



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### Serious eye damage/eye irritation

#### **Product:**

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

#### **Components:**

##### **potassium nitrate:**

Species: Rabbit  
Result: No eye irritation

### Respiratory or skin sensitisation

#### **Product:**

Result: non-sensitizing

#### **Components:**

##### **potassium nitrate:**

Result: non-sensitizing

### germ cell mutagenicity

#### **Product:**

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

#### **Components:**

##### **potassium nitrate:**

Genotoxicity in vitro : Remarks: No data available

### Carcinogenicity

#### **Product:**

Remarks: Contains no ingredient listed as a carcinogen

#### **Components:**

##### **potassium nitrate:**

Remarks: Did not show carcinogenic effects in animal experiments.

### Reproductive toxicity

#### **Product:**

Effects on fertility :

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Remarks: No toxicity to reproduction

Effects on foetal  
development

: Remarks: Did not show teratogenic effects in animal  
experiments.  
Information given is based on data obtained from similar  
substances.

### Components:

#### **potassium nitrate:**

Effects on fertility

:  
Remarks: No toxicity to reproduction

Effects on foetal  
development

: Remarks: Did not show teratogenic effects in animal  
experiments.

### **STOT - single exposure**

#### Product:

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

### Components:

#### **potassium nitrate:**

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.

### Components:

#### **potassium nitrate:**

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

### **Repeated dose toxicity**

#### Components:

#### **potassium nitrate:**

Species: Rat

NOAEL:  $\geq 1.500$  mg/kg

Exposure time: 1 d

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### Aspiration hazard

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

### 11.2 Information on other hazards

#### Endocrine disrupting properties

No data available

#### Experience with human exposure

##### Product:

General Information : Danger of methaemoglobin formation.

#### Further information

##### Product:

Remarks: The product was not tested. The statement was derived from products of similar structure and composition.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 422 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 555 mg/l  
aquatic invertebrates Exposure time: 48 h  
Test Type: static test

Toxicity to algae : No observed effect concentration (Desmodesmus subspicatus  
(green algae)): 83 mg/l  
Exposure time: 168 h  
Test Type: other  
Method: No data available

Toxicity to bacteria : EC20 (activated sludge): ca. > 100 mg/l  
Exposure time: 0,5 h  
Test Type: other  
Method: No data available

#### Components:

##### **potassium nitrate:**

Toxicity to fish : LC50 (Fish): > 100 mg/l  
Exposure time: 96 h

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 490 mg/l  
Exposure time: 48 h

Toxicity to algae : LC50 :  $\geq$  1.700 mg/l  
Exposure time: 10 d

### potassium hydrogensulphate:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 3.500 mg/l

## 12.2 Persistence and degradability

### Product:

Biodegradability : Remarks: The product works in the soil as fertilizer and is diminished in a few weeks.

### Components:

#### potassium nitrate:

Biodegradability : Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

## 12.3 Bioaccumulative potential

### Product:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

### Components:

#### potassium nitrate:

Bioaccumulation : Remarks: Does not bioaccumulate.

## 12.4 Mobility in soil

### Product:

Mobility : Remarks: No data available

### Components:

#### potassium nitrate:

Mobility : Remarks: No data available

## 12.5 Results of PBT and vPvB assessment

### Product:

Assessment : Remarks: No data available

### Components:

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### **potassium nitrate:**

#### Assessment

: This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

### **12.6 Endocrine disrupting properties**

No data available

### **12.7 Other adverse effects**

#### **Product:**

Additional ecological information

: Disposal via sewage water treatment plants may cause impairment of the nitrification activity of the activated sludge. There is a high probability that the product is acute not harmful to aquatic organisms.  
Additional ecological information  
The product has not been tested. The information is derived from the properties of the individual components.  
At higher pH values, which can be found in natural surface waters, an increase of toxic effects on aquatic organisms may be expected.

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## **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.

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## **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

### **14.3 Transport hazard class(es)**

Not regulated as a dangerous good

### **14.4 Packing group**

Not regulated as a dangerous good

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### 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

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## 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)

Other regulations : TRGS 511 'Ammonium nitrate'

This product is subject to Regulation (EU) 2019/1148;  
suspicious transactions, disappearance or theft of the product  
must be reported to the relevant authority.

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this product.

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## SECTION 16: Other information

### Full text of H-Statements

H272 : May intensify fire; oxidizer.  
H314 : Causes severe skin burns and eye damage.  
H335 : May cause respiratory irritation.

### Full text of other abbreviations

Ox. Sol. : Oxidizing solids  
Skin Corr. : Skin corrosion  
STOT SE : Specific target organ toxicity - single exposure

(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

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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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