# Material Safety Data Sheet
according to Regulation (EC) No. 1907/2006

## NovaTec® Solub BS-Fruit 9-0-43

Version: 1.7
Date of last issue: 23.12.2022
Date of first issue: 22.11.2017

Revision Date:
07.04.2023

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

### 1.1 Product identifier

| | | |
|---|---|---|
| Trade name | : | NovaTec® Solub BS-Fruit 9-0-43 |
| UFI | : | 0AJ5-0024-J00H-FCW4 |

### 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<br>Krögerweg 10<br>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)**

| | |
|---|---|
| Skin corrosion/irritation, Category 2 | H315: Causes skin irritation. |
| Serious eye damage/eye irritation, Category 1 | H318: Causes serious eye damage. |

### 2.2 Label elements

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

| | | | |
|---|---|---|---|
| Hazard pictograms | : |  | |
| Signal word | : | Danger | |
| Hazard statements | : | H315 | Causes skin irritation. |
| | | H318 | Causes serious eye damage. |
| Precautionary statements | : | P101 | If medical advice is needed, have product container or label at hand. |
| | | P102 | Keep out of reach of children. |
| | | **Prevention:** | |
| | | P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| | | P284 | In case of inadequate ventilation wear respiratory protection. |
| | | **Response:** | |
| | | P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| | | P310 | Immediately call a POISON CENTER or doctor/ physician. |
| 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)
with living microorganisms

**Hazardous components**

| Chemical Name | CAS-No.<br>EC-No.<br>Registration number | Classification | Concentration (% w/w) |
|---|---|---|---|

| | | | |
|---|---|---|---|
| potassium nitrate | 7757-79-1<br>231-818-8<br>01-2119488224-35-XXXX | Ox. Sol. 3; H272 | >= 10 - <= 45 |
| potassium hydrogensulphate | 7646-93-7<br>231-594-1 | Skin Corr. 1B; H314<br>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

| | | |
|---|---|---|
| Unsuitable extinguishing media | : | Foam<br>Dry chemical<br>Carbon dioxide (CO2)<br>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:<br>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. |

## SECTION 6: Accidental release measures

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

| | | |
|---|---|---|
| Personal precautions | : | Avoid dust formation.<br>Ensure adequate ventilation.<br>In case of insufficient ventilation, wear suitable respiratory equipment. |

**6.2 Environmental precautions**

| | | |
|---|---|---|
| Environmental precautions | : | Do not empty into drains.<br>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.<br>Keep away from direct sunlight.<br>Protect against heat.<br>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) |
| 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:**

| 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 : crystalline

Colour : green

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

| | | |
|---|---|---|
| Lower explosion limit | : | Not explosive |
| Vapour pressure | : | Not applicable |
| Relative vapour density | : | Not applicable |
| Bulk density | : | ca. 1.150 kg/m³ |
| Solubility(ies) | | |
| Water solubility | : | soluble |
| Partition coefficient: n-octanol/water | : | Not applicable |
| Decomposition temperature | : | > 130 °C<br>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 |
| **Particle characteristics** | | |
| Particle Size Distribution | : | D50 = 370 µm<br>D50 Tolerance range = 296 µm - 444 µm<br>Measurement technique: Sieve analysis |

### 9.2 Other information

No data available

## 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

| | | |
|---|---|---|
| Conditions to avoid | : | Protect from frost, heat and sunlight.<br>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 |

## 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

**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 :

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: >= 1.500 mg/kg
Exposure time: 1 d

**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.

## SECTION 12: Ecological information

**12.1 Toxicity**

**Product:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Cyprinus carpio (Carp)): 422 mg/l<br>Exposure time: 48 h<br>Test Type: static test |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia (water flea)): 555 mg/l<br>Exposure time: 48 h<br>Test Type: static test |
| Toxicity to algae | : | No observed effect concentration (Desmodesmus subspicatus (green algae)): 83 mg/l<br>Exposure time: 168 h<br>Test Type: other<br>Method: No data available |
| Toxicity to bacteria | : | EC20 (activated sludge): ca. > 100 mg/l<br>Exposure time: 0,5 h<br>Test Type: other<br>Method: No data available |

**Components:**

**potassium nitrate:**

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

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 490 mg/l<br>Exposure time: 48 h |
| Toxicity to algae | : | LC50 : >= 1.700 mg/l<br>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:**

**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.<br>There is a high probability that the product is acute not harmful to aquatic organisms.<br>Additional ecological information<br>The product has not been tested. The information is derived from the properties of the individual components.<br>At higher pH values, which can be found in natural surface waters, an increase of toxic effects on aquatic organsims may be expected. |

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

| | | |
|---|---|---|
| Product | : | Check if agriculture use is possible.<br>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

### 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**

Not applicable for product as supplied.

## 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 |
| 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.

## 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

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.

DE / EN