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

## Nexur S

Version: 1.2

Revision Date: 17.01.2018

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

### 1.1 Product identifier

Trade name : Nexur S

### 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
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

**Hazardous components**

| Chemical Name | CAS-No.<br>EC-No.<br>Registration number | Classification | Concentration (% w/w) |
|---|---|---|---|
| urea | 57-13-6<br>200-315-5<br>01-2119463277-33-XXXX | | <= 75 |
| ammonium sulphate | 7783-20-2<br>231-984-1<br>01-2119455044-46-XXXX | | <= 40 |

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.
Consult a physician if necessary.

### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Irritation
Redness
Nausea
Vomiting
Breathing difficulties
Circulatory collapse

### 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 activitys according to surrounding.

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

| | | |
|---|---|---|
| Specific hazards during fire-fighting | : | Fire may cause evolution of:<br>carbon monoxide (CO)<br>Carbon dioxide (CO2)<br>ammonia<br>Nitrogen oxides (NOx)<br>Sulphur oxides |

### 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 let product enter drains.<br>Retain and dispose of contaminated wash water. |

### 6.3 Methods and material for containment and cleaning up

| | | |
|---|---|---|
| Methods for cleaning up | : | Take up mechanically and send for disposal. |

### 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>Keep away from heat.<br>Protect from moisture. |
| Advice on protection against fire and explosion | : | The product is not flammable. Keep away from combustible materials. Keep away from heat and sources of ignition. |
| 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 | : | When stored loose do not mix with other fertilizers. Protect |

areas and containers: from moisture. Keep away from heat. Protect from contamination. Keep away from combustible material.

Storage class (TRGS 510) : 13, Non Combustible Solids

**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 |
|---|---|---|---|---|
| urea | Workers | Skin contact | | 580 mg/kg |
| Remarks: | Continuous exposure | | | |
| | Consumers | Inhalation | | 125 mg/m3 |
| Remarks: | Continuous exposure | | | |
| | Consumers | Ingestion | | 42 mg/kg |
| Remarks: | Continuous exposure | | | |
| ammonium sulphate | Workers | Inhalation | systemic effects | 11,67 mg/m3 |
| | Workers | Skin contact | systemic effects | 42,667 mg/kg |
| Remarks: | Exposure time: 1 DAY | | | |
| | Consumers | Ingestion | systemic effects | 6,4 mg/kg |
| Remarks: | Exposure time: 1 DAY | | | |
| | Consumers | Inhalation | systemic effects | 1,667 mg/m3 |
| | Consumers | Skin contact | systemic effects | 12,8 mg/kg |
| Remarks: | Exposure time: 1 DAY | | | |

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

| Substance name | Environmental Compartment | Value |
|---|---|---|
| urea | Fresh water | 0,047 mg/l |
| ammonium sulphate | Fresh water | 0,312 mg/l |
| | Marine water | 0,0312 mg/l |
| | Ceiling Limit Value | 0,53 mg/l |
| | Estuary sediment | 0,063 mg/l |
| | Soil | 62,6 mg/kg |

### 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). chloroprene rubber (CR) - 0.5 mm coating thickness butyl rubber (butyl) - 0.7 mm coating thickness polyvinylchloride (PVC) - 0.7 mm coating thickness |
| Skin and body protection | : | Wearing of closed work clothing is recommended. |
| Respiratory protection | : | Breathing apparatus 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 let product enter drains. Retain and dispose of contaminated wash water. |

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Appearance | : | prills |
| Colour | : | yellow to brownish |
| Odour | : | odourless |
| pH | : | ca. 6 - 8, 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 | : | No data available |
| Density | : | ca. 1,2 g/cm³ (20 °C) |

| | | |
|---|---|---|
| Bulk density | : | ca. 950 kg/m³ |
| Solubility(ies) | | |
| Water solubility | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Auto-ignition temperature | : | Not applicable |
| Decomposition temperature | : | No data available |
| Viscosity | | |
| Viscosity, dynamic | : | Not applicable |
| Explosive properties | : | Not explosive |

### 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

The product is chemically stable.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Reacts with strong oxidizing agents.
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 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): > 2.000 mg/kg
Remarks: The product has not been tested. The information is derived from the properties of the individual components.

**Components:**

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

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

Acute inhalation toxicity : LC50 (Guinea pig): 900 mg/l

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

**Skin corrosion/irritation**

**Product:**

Remarks: non-irritant
The product has not been tested. The information is derived from the properties of the individual components.

**Components:**

**ammonium sulphate:**
Method: OECD Test Guideline 404
Result: non-irritant

**Serious eye damage/eye irritation**

**Product:**

Remarks: non-irritant
The product has not been tested. The information is derived from the properties of the individual components.

**Components:**

**ammonium sulphate:**
Result: non-irritant

**Respiratory or skin sensitisation**

**Product:**

Remarks: no sensitizing effect
The product has not been tested. The information is derived from the properties of the individual

components.

**Germ cell mutagenicity**

**Product:**

Germ cell mutagenicity- Assessment : Contains no ingredient listed as a mutagen

**Carcinogenicity**

**Product:**

Carcinogenicity - Assessment : Contains no ingredient listed as a carcinogen

**Reproductive toxicity**

**Product:**

Reproductive toxicity - Assessment : No toxicity 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

**ammonium sulphate:**
Species: Rat
NOAEL: 256 mg/kg
Application Route: Oral

Species: Rat
NOAEL: 300 mg/kg
Application Route: by inhalation

## SECTION 12: Ecological information

### 12.1 Toxicity

**Components:**

**urea:**

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

**ammonium sulphate:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): 53 mg/l<br>Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia (water flea)): 121,7 mg/l<br>Exposure time: 48 h |
| Toxicity to algae | : | EC50 (Chlorella vulgaris (Fresh water algae)): 2.700 mg/l<br>Exposure time: 18 Days |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | EC10: 3,12 mg/l<br>Exposure time: 70 Days<br>Test Type: No data available |

### 12.2 Persistence and degradability

**Product:**

| | | |
|---|---|---|
| Biodegradability | : | Remarks: readily biodegradable |
| Physico-chemical removability | : | Remarks: No data available |

**Components:**

**ammonium sulphate:**

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

### 12.3 Bioaccumulative potential

**Product:**

| | | |
|---|---|---|
| Bioaccumulation | : | Remarks: Does not bioaccumulate. |

**Components:**

**ammonium sulphate:**

| | | |
|---|---|---|
| Bioaccumulation | : | Remarks: Does not bioaccumulate. |

### 12.4 Mobility in soil

No data available

### 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. |
| 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**

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