

# Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006



## Hakaphos® Naranja 15-5-30

Version: 2.9  
Date of last issue: 06.04.2023  
Date of first issue: 21.04.2016

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

#### 1.1 Product identifier

Trade name : Hakaphos® Naranja 15-5-30  
UFI : 6AW5-S0DX-R00V-32GD

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

Use of the Substance/Mixture : Fertiliser

#### 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

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Oxidizing solids, Category 2 H272: May intensify fire; oxidizer.

#### 2.2 Label elements

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

Hazard pictograms :



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Signal word	:	Danger	
Hazard statements	:	H272	May intensify fire; oxidizer.
Precautionary statements	:	<b>Prevention:</b> P210  P220  P280 <b>Response:</b> P370 + P378  <b>Disposal:</b> P501	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing and other combustible materials. Wear protective gloves/ protective clothing. In case of fire: Use water spray to extinguish. Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
ammonium nitrate	6484-52-2  229-347-8  01-2119490981-27-XXXX	Ox. Sol. 3; H272 Eye Irrit. 2; H319	>= 5 - < 10

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

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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.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- Suitable extinguishing media : Water
- Unsuitable extinguishing media : Foam  
Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Sand  
High volume water jet

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

- Specific hazards during firefighting : Thermal decomposition can lead to release of irritating gases and vapours.  
Nitrogen oxides (NO<sub>x</sub>)  
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

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

Personal precautions : Keep away from children.

### 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., For disposal considerations see section 13., See sections: 7, 8, 11, 12 and 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Keep away from direct sunlight.  
Keep away from heat.  
Protect from contamination.  
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 : Wash hands before breaks and at the end of workday.

### 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 from moisture.

Advice on common storage : Keep away from strong acids.  
Keep away from strong bases.  
Keep away from combustible materials.

Storage class (TRGS 510) : 5.1B, Oxidizing hazardous materials

Dampness : Keep in a dry place.

### 7.3 Specific end use(s)

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

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

Substance name	End Use	Exposure routes	Potential health effects	Value
ammonium nitrate	Workers	Inhalation	Long-term systemic effects	36 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	5,12 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	2,56 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	8,9 mg/m <sup>3</sup>
	Consumers	Skin contact, Ingestion	Long-term systemic effects	2,56 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
ammonium nitrate	Sewage treatment plant	18 mg/l

**8.2 Exposure controls**

**Personal protective equipment**

Eye protection : In case of dust formation:  
Safety glasses

Hand protection  
Material : Gloves

Skin and body protection : No special protective equipment required.

Respiratory protection : Breathing apparatus only if aerosol or dust is formed.  
Respirator with a particle filter (EN 143)  
P1 filter

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### Environmental exposure controls

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

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state : solid

Colour : orange

Odour : odourless

Odour Threshold : No data available

pH : 4,1, Concentration: 100 g/l (20 °C)

Melting point/range : No data available

Boiling point/boiling range : Not applicable

Flash point : Not relevant

Evaporation rate : Not applicable

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : Not applicable

Relative vapour density : Not applicable

Relative density : No data available

Solubility(ies)  
Water solubility : soluble

Partition coefficient: n-octanol/water : Not applicable

Viscosity  
Viscosity, dynamic : Not applicable

Viscosity, kinematic : Not applicable

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Oxidizing properties : No data available

### Particle characteristics

Particle Size Distribution : D50 = 350 µm  
D50 Tolerance range = 280 µm - 420 µm  
Measurement technique: Sieve analysis

## 9.2 Other information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.  
Decomposes on heating.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Evolution of ammonia under influence of alkalis.

### 10.4 Conditions to avoid

Conditions to avoid : Keep away from heat and sources of ignition.

### 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 oxides (NO<sub>x</sub>)  
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 : Remarks: Based on available data, the classification criteria are not met.

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Acute inhalation toxicity : Remarks: Based on available data, the classification criteria are not met.

Acute dermal toxicity : Remarks: Based on available data, the classification criteria are not met.

### **Components:**

#### **ammonium nitrate:**

Acute oral toxicity : LD50 (Rat): > 2.950 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : > 88,8 mg/l  
Method: No information available.

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 402

### **Skin corrosion/irritation**

#### **Product:**

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

### **Components:**

#### **ammonium nitrate:**

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

### **Serious eye damage/eye irritation**

#### **Product:**

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

### **Components:**

#### **ammonium nitrate:**

Species: Rabbit  
Method: OECD Test Guideline 405  
Result: Irritant

### **Respiratory or skin sensitisation**

#### **Product:**

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

### **Components:**



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### **ammonium nitrate:**

Result: Does not cause skin sensitisation.

### **germ cell mutagenicity**

#### **Product:**

Genotoxicity in vitro : Remarks: Based on available data, the classification criteria are not met.

#### **Components:**

##### **ammonium nitrate:**

Genotoxicity in vitro : Method: OECD Test Guideline 471  
Result: negative

### **Carcinogenicity**

#### **Product:**

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

#### **Components:**

##### **ammonium nitrate:**

Species: Rat  
Remarks: Animal testing did not show any carcinogenic effects.

### **Reproductive toxicity**

#### **Product:**

Effects on fertility :  
Remarks: No toxicity to reproduction

Effects on foetal development : Remarks: Based on available data, the classification criteria are not met.

#### **Components:**

##### **ammonium nitrate:**

Effects on fertility : Species: Rat  
Remarks: Animal testing did not show any effects on fertility.

Effects on foetal development : Species: Rat  
Remarks: Did not show teratogenic effects in animal experiments.

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### STOT - single exposure

**Product:**

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

### STOT - repeated exposure

**Product:**

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

### Repeated dose toxicity

**Components:**

**ammonium nitrate:**

Species: Rat  
NOAEL: > 1.500 mg/kg  
Application Route: Oral  
Exposure time: 28 d

Species: Rat  
NOAEL: = 256 mg/kg  
Application Route: Oral  
Exposure time: 52 w  
Method: OECD Test Guideline 453

Species: Rat  
NOAEL: >= 185 mg/kg  
Application Route: by inhalation  
Exposure time: 2 w  
Method: Repeated Dose Inhalation Toxicity: 28-day or 14-day Study.

### 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

No data available

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### SECTION 12: Ecological information

#### 12.1 Toxicity

**Components:**

**ammonium nitrate:**

- Toxicity to fish : LC50 (Fish): > 100 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 490 mg/l  
Exposure time: 48 h  
  
LC50 : 490 mg/l
- Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 1.700 mg/l  
Exposure time: 10 d

#### 12.2 Persistence and degradability

**Product:**

- Biodegradability : Remarks: No data available

**Components:**

**ammonium 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:**

**ammonium nitrate:**

- Bioaccumulation : Remarks: Bioaccumulation is unlikely.

- Partition coefficient: n-octanol/water : log Pow: -3,1

#### 12.4 Mobility in soil

**Product:**

- Mobility : Remarks: Groundwater contamination is unlikely.

- Distribution among environmental compartments : Remarks: No data available

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### 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 : Information refers to the main component.  
Do not flush into surface water or sanitary sewer system.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : In accordance with local and national regulations.  
Do not flush into surface water, groundwater or sanitary sewer system.

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

ADN : UN 1477  
ADR : UN 1477  
RID : UN 1477  
IMDG : UN 1477  
IATA : UN 1477

### 14.2 UN proper shipping name

ADN : NITRATES, INORGANIC, N.O.S.  
ADR : NITRATES, INORGANIC, N.O.S.  
RID : NITRATES, INORGANIC, N.O.S.  
IMDG : NITRATES, INORGANIC, N.O.S.  
IATA : Nitrates, inorganic, n.o.s.

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### 14.3 Transport hazard class(es)

<b>ADN</b>	: 5.1
<b>ADR</b>	: 5.1
<b>RID</b>	: 5.1
<b>IMDG</b>	: 5.1
<b>IATA</b>	: 5.1

### 14.4 Packing group

<b>ADN</b>	
Packing group	: II
Classification Code	: O2
Hazard Identification Number	: 50
Labels	: 5.1

<b>ADR</b>	
Packing group	: II
Classification Code	: O2
Hazard Identification Number	: 50
Labels	: 5.1
Tunnel restriction code	: (E)

<b>RID</b>	
Packing group	: II
Classification Code	: O2
Hazard Identification Number	: 50
Labels	: 5.1

<b>IMDG</b>	
Packing group	: II
Labels	: 5.1
EmS Code	: F-A, S-Q
Segregation group	: 2: Ammonium compounds

<b>IATA</b>	
Packing instruction (cargo aircraft)	: 562
Packing instruction (passenger aircraft)	: 558
Packing instruction (LQ)	: Y544
Packing group	: II
Labels	: 5.1

### 14.5 Environmental hazards

<b>ADN</b>	
Environmentally hazardous	: no

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### ADR

Environmentally hazardous : no

### RID

Environmentally hazardous : no

### IMDG

Marine pollutant : no

### 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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not listed

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
ANNEX I;P8	OXIDIZING LIQUIDS AND SOLIDS	50.000 kg	200.000 kg

Water hazard class (Germany) : WGK 1 slightly hazardous to water

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

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

The product is subject to the supply restrictions of the Ordinance on the Prohibition of Chemicals.

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### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

### SECTION 16: Other information

#### Full text of H-Statements

H272 : May intensify fire; oxidizer.  
H319 : Causes serious eye irritation.

#### Full text of other abbreviations

Eye Irrit. : Eye irritation  
Ox. Sol. : Oxidizing solids

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; 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; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; 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; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### 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

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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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