	<b>SAFETY DATA SHEET</b>	Page : 1 / 14
		Revision nr : 2.1
	<b>Granular Sulphur</b>	Issue date : 26/02/2018
		Supersedes : 12/09/2016

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

### 1.1. Product identifier

Product form : Substance  
 Trade name/designation : Granular Sulphur  
 EC Index : 016-094-00-1  
 EC-No. : 231-722-6  
 CAS-No. : 7704-34-9  
 REACH registration No : 01-2119487295-27-0120  
 Product group : Trade product

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

#### 1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use

#### 1.2.2. Uses advised against

No data available

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

NIS a.d. Novi Sad  
 Narodnog Fronta 12  
 21000 Novi Sad - Serbia  
 T + 381 (0) 21 481 1111  
[Dragana.Cvetkov@nis.eu](mailto:Dragana.Cvetkov@nis.eu) (REACH)

#### Only Representative

REACH Law Ltd.  
 Vänrikinkuja 3 JK 21  
 02600 Espoo - Finland  
 T +358(0) 9 412 3055 - F +358 (0) 9 412 3049  
[sds@reachlaw.fi](mailto:sds@reachlaw.fi)

### 1.4. Emergency telephone number

Emergency number : + 381 (0) 21 481 1111 (This telephone number is available during office hours only.)

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	+353 1 809 21 66 (public, 8am - 10pm, 7/7) +353 01 809 2566 (Professionals, 24/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, 24/7, healthcare professionals only)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Irrit. 2 H315

Full text of H statements : see section 16


### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

	<b>SAFETY DATA SHEET</b>	Page : 2 / 14
		Revision nr : 2.1
	<b>Granular Sulphur</b>	Issue date : 26/02/2018
		Supersedes : 12/09/2016

Signal word : Warning

Hazard statements (CLP) : H315 - Causes skin irritation.

Precautionary statements (CLP) : P280 - Wear protective gloves/protective clothing and eye/face protection.  
P302+P352 - IF ON SKIN: Wash with plenty of water/...  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P362 - Take off contaminated clothing.

Listed in Annex VI : EC Index-No. : 016-094-00-1

### **2.3. Other hazards**

Other hazards : PBT/vPvB data : This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

## **SECTION 3: Composition/information on ingredients**

### **3.1. Substances**

Substance name : Granular Sulphur

CAS-No. : 7704-34-9

EC-No. : 231-722-6

EC Index : 016-094-00-1

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sulfur	(CAS-No.) 7704-34-9 (EC-No.) 231-722-6 (EC Index) 016-094-00-1	>= 99,2	Skin Irrit. 2, H315
Hydrogen sulphide (H2S)	(CAS-No.) 7783-06-4 (EC-No.) 231-977-3 (EC Index) 016-001-00-4	< 0,001	Flam. Gas 1, H220 Press. Gas Acute Tox. 2 (Inhalation), H330 Aquatic Acute 1, H400

Full text of H-statements: see section 16

### **3.2. Mixtures**

Not applicable

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

Additional advice : First aider: Pay attention to self-protection. See also section 8 . Never give anything by mouth to an unconscious person. Show this safety data sheet to the doctor in attendance. In case of doubt or persistent symptoms, consult always a physician.

Inhalation : Keep at rest. Provide fresh air. In case of shortness of breath, give oxygen. Give oxygen or artificial respiration if necessary. Get medical advice/attention.

Skin contact : Take off immediately all contaminated clothing. Wash with plenty of water/. Get medical advice/attention. Wash contaminated clothing before reuse.


Eyes contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

Ingestion : Do NOT induce vomiting. Rinse mouth. Get medical advice/attention.

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

Inhalation : May cause respiratory irritation.

Skin contact : Irritating to skin. Hot product (liquid) can cause thermal burns.

	<b>SAFETY DATA SHEET</b>	Page : 3 / 14
	<b>Granular Sulphur</b>	Revision nr : 2.1
Issue date : 26/02/2018		
Supersedes : 12/09/2016		

Eyes contact : May cause eye irritation. Hot product (liquid) can cause thermal burns.  
Ingestion : May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media : Water spray, Alcohol resistant foam, Carbon dioxide, Dry extinguishing powder.  
Unsuitable extinguishing media : Strong water jet.

**5.2. Special hazards arising from the substance or mixture**

Specific hazards : Flammable. Do not allow run-off from fire-fighting to enter drains or water courses. Vapours are heavier than air and may spread along floors.  
Explosion hazard : Vapours may form explosive mixture with air. May form explosive dust-air mixture.  
Hazardous decomposition products in case of fire : Hydrogen sulfide. Sulphur oxides. Nitrogen oxides. Carbon oxides (CO, CO<sub>2</sub>).

**5.3. Advice for firefighters**

Firefighting instructions : Evacuate personnel to a safe area. Special protective equipment for firefighters. . In case of fire: Wear self-contained breathing apparatus. Use water spray or fog for cooling exposed containers. Wear a positive-pressure supplied-air respirator with full facepiece. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**SECTION 6: Accidental release measures**

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

**6.1.1. For non-emergency personnel**

For non-emergency personnel : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Avoid contact with skin, eyes and clothing. Do not breathe vapours/dust. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure equipment is adequately earthed.

**6.1.2. For emergency responders**

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8 .

**6.2. Environmental precautions**


Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

Methods for cleaning up : Stop leak if safe to do so. Dam up. Collect in closed and suitable containers for disposal. Dispose of contaminated materials in accordance with current regulations. Hose down gases, fumes and/or dust with water.

**6.4. Reference to other sections**

Concerning personal protective equipment to use, see section 8 . Concerning disposal elimination after cleaning, see section 13.

	<b>SAFETY DATA SHEET</b>	Page : 4 / 14
		Revision nr : 2.1
	<b>Granular Sulphur</b>	Issue date : 26/02/2018
		Supersedes : 12/09/2016

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Avoid contact with skin, eyes and clothing. Do not breathe vapours/dust. Take precautionary measures against static discharges. Ensure equipment is adequately earthed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take any precaution to avoid mixing with combustibles... See also section 10. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Do not allow to enter into surface water or drains.

Hygiene measures : Keep good industrial hygiene. When using do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling of the product. Take off contaminated clothing. Separate working clothes from town clothes. Keep away from food, drink and animal feedingstuffs.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Store in a dry, cool and well-ventilated place. Do not store near or with any of the incompatible materials listed in section 10. Protect from sunlight.

Heat and ignition sources : Keep away from open flames, hot surfaces and sources of ignition. Do not smoke.

Information on mixed storage : oxidizing agents. (strong) acids.

Packaging materials : Keep only in the original container. Recommended packaging materials : Carbon steel .

### 7.3. Specific end use(s)

No data available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

sulfur (7704-34-9)		
Latvia	OEL TWA (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
Lithuania	IPRV (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
Romania	OEL STEL (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (dust)
Hydrogen sulphide (H <sub>2</sub> S) (7783-06-4)		
EU	IOELV TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	5 ppm
EU	IOELV STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
EU	IOELV STEL (ppm)	10 ppm
Austria	MAK (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Austria	MAK (ppm)	5 ppm
Austria	MAK Short time value (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Austria	MAK Short time value (ppm)	5 ppm
Austria	OEL - Ceilings (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Austria	OEL - Ceilings (ppm)	5 ppm
Belgium	Limit value (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	5 ppm
Belgium	Short time value (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Belgium	Short time value	10 ppm
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Bulgaria	OEL TWA (ppm)	5 ppm
Bulgaria	OEL STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Bulgaria	OEL STEL (ppm)	10 ppm
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>



# SAFETY DATA SHEET

Page : 5 / 14

Revision nr : 2.1

Issue date : 26/02/2018

Supersedes : 12/09/2016

## Granular Sulphur

### Hydrogen sulphide (H<sub>2</sub>S) (7783-06-4)

Croatia	GVI (granična vrijednost izloženosti) (ppm)	5 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	10 ppm
Cyprus	OEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Cyprus	OEL TWA (ppm)	5 ppm
Cyprus	OEL STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup> (vapor)
Cyprus	OEL STEL (ppm)	10 ppm (vapor)
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	5 ppm
Estonia	OEL TWA (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Estonia	OEL TWA (ppm)	10 ppm
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	5 ppm
Finland	HTP-arvo (15 min)	14 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min) (ppm)	10 ppm
France	VME (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup> (restrictive limit)
France	VME (ppm)	5 ppm (restrictive limit)
France	VLE (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup> (restrictive limit)
France	VLE (ppm)	10 ppm (restrictive limit)
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	2(l) 7,1 mg/m <sup>3</sup> peak limitation : 2(l)
Germany	TRGS 900 Occupational exposure limit value (ppm)	5 ppm Y= There is no fertility risk if the threshold limit as well as the biological threshold limit (BGW) is met
Gibraltar	8h mg/m <sup>3</sup>	7 mg/m <sup>3</sup>
Gibraltar	8h ppm	5 ppm
Gibraltar	Short-term mg/m <sup>3</sup>	14 mg/m <sup>3</sup>
Gibraltar	Short-term ppm	10 ppm
Greece	OEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Greece	OEL TWA (ppm)	5 ppm
Greece	OEL STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Greece	OEL STEL (ppm)	10 ppm
Hungary	AK-érték	7 mg/m <sup>3</sup>
Hungary	CK-érték	14 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	5 ppm
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (ppm)	10 ppm
Italy	OEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Italy	OEL TWA (ppm)	5 ppm
Italy	OEL STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Italy	OEL STEL (ppm)	10 ppm



# SAFETY DATA SHEET

Page : 6 / 14

Revision nr : 2.1


Issue date : 26/02/2018

Supersedes : 12/09/2016

## Granular Sulphur

### Hydrogen sulphide (H<sub>2</sub>S) (7783-06-4)

Latvia	OEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Latvia	OEL TWA (ppm)	5 ppm
Lithuania	IPRV (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	5 ppm
Lithuania	TPRV (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Lithuania	TPRV (ppm)	10 ppm
Lithuania	NRV (mg/m <sup>3</sup> )	20 mg/m <sup>3</sup>
Lithuania	NRV (ppm)	15 ppm
Luxembourg	OEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Luxembourg	OEL TWA (ppm)	5 ppm
Luxembourg	OEL STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Luxembourg	OEL STEL (ppm)	10 ppm
Malta	OEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Malta	OEL TWA (ppm)	5 ppm
Malta	OEL STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Malta	OEL STEL (ppm)	10 ppm
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	2,3 mg/m <sup>3</sup>
Poland	NDS (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Portugal	OEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup> (indicative limit value)
Portugal	OEL TWA (ppm)	5 ppm (indicative limit value)
Portugal	OEL STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup> (indicative limit value)
Portugal	OEL STEL (ppm)	10 ppm (indicative limit value)
Romania	OEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Romania	OEL TWA (ppm)	5 ppm
Romania	OEL STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Romania	OEL STEL (ppm)	10 ppm
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (ppm)	10 ppm
Slovakia	NPHV (Hraničná) (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Slovenia	OEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Slovenia	OEL TWA (ppm)	5 ppm
Slovenia	OEL STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Slovenia	OEL STEL (ppm)	10 ppm
Spain	VLA-ED (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Spain	VLA-ED (ppm)	5 ppm
Spain	VLA-EC (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Spain	VLA-EC (ppm)	10 ppm
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	5 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	10 ppm
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>


	<b>SAFETY DATA SHEET</b>	Page : 7 / 14
		Revision nr : 2.1
	<b>Granular Sulphur</b>	Issue date : 26/02/2018
		Supersedes : 12/09/2016

Hydrogen sulphide (H2S) (7783-06-4)		
United Kingdom	WEL TWA (ppm)	5 ppm
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
United Kingdom	WEL STEL (ppm)	10 ppm
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
Norway	Grenseverdier (AN) (ppm)	5 ppm
Norway	Grenseverdier (Takverdi) (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Norway	Grenseverdier (Takverdi) (ppm)	10 ppm
Switzerland	MAK (mg/m <sup>3</sup> )	7,1 mg/m <sup>3</sup>
Switzerland	MAK (ppm)	5 ppm
Switzerland	KZGW (mg/m <sup>3</sup> )	14,2 mg/m <sup>3</sup>
Switzerland	KZGW (ppm)	10 ppm
Australia	TWA (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Australia	TWA (ppm)	10 ppm
Australia	STEL (mg/m <sup>3</sup> )	21 mg/m <sup>3</sup>
Australia	STEL (ppm)	15 ppm
Canada (Quebec)	VECD (mg/m <sup>3</sup> )	21 mg/m <sup>3</sup>
Canada (Quebec)	VECD (ppm)	15 ppm
Canada (Quebec)	VEMP (mg/m <sup>3</sup> )	14 mg/m <sup>3</sup>
Canada (Quebec)	VEMP (ppm)	10 ppm
USA - ACGIH	ACGIH TWA (ppm)	1 ppm
USA - ACGIH	ACGIH STEL (ppm)	5 ppm
USA - IDLH	US IDLH (ppm)	100 ppm
USA - NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
USA - NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm
USA - OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm

## 8.2. Exposure controls

Engineering measure(s)	: Provide adequate ventilation. Use with local exhaust ventilation. Take precautionary measures against static discharges. Use only explosion-proof equipment. Organisational measures to prevent /limit releases, dispersion and exposure. See also section 7.
Personal protective equipment	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hand protection	: Wear suitable gloves. rubber gloves. (EN 374). NBR (Nitrile rubber) . Neoprene. Polyvinylchloride (PVC). Breakthrough time : > 480 min. The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves.
Eye protection	: face shield. Safety glasses (EN166)
Body protection	: Wear sealed work clothes, chemical resistant. Overalls, apron and boots recommended.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (DIN EN 140). Full face mask (EN 136). Filter type: ABEK/P (EN141). Self-contained open-circuit compressed air breathing apparatus (EN 137) .
Thermal hazard protection	: Not required for normal conditions of use.



	<b>SAFETY DATA SHEET</b>	Page : 8 / 14
		Revision nr : 2.1
	<b>Granular Sulphur</b>	Issue date : 26/02/2018
		Supersedes : 12/09/2016

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Solid.
Colour	: Yellow.
Odour	: Characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting / freezing point	: 112-120 °C
Freezing point	: No data available
Initial boiling point and boiling range	: 444-447 °C SRPS EN ISO 3405
Flash point	: 168 - 207 °C SRPS EN ISO 2719
Auto-ignition temperature	: 232 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable
Vapour pressure	: 0,1333 Pa @20°C
Vapour density	: 1,79 (Air=1)
Relative density	: 1,811 - 2,34 g/cm <sup>3</sup> @15 °C
Solubility	: Water: Insoluble
Partition coefficient n-octanol/water	: No data available
Kinematic viscosity	: No data available
Dynamic viscosity	: No data available
Explosive properties	: Not applicable. The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	: Not applicable. The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.
Explosive limits	: 35-1400 g sulfur dust/m <sup>3</sup> air

### 9.2. Other information

Minimum ignition energy : >=

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions. Reference to other sections: 10.5.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

at high temperatures :H<sub>2</sub>S. Vapours may form explosive mixture with air.

### 10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. See also section 7 : Handling and storage .


### 10.5. Incompatible materials

oxidising substances. Acids. Bases . Strong bases. See also section 7 : Handling and storage .

### 10.6. Hazardous decomposition products

SO<sub>x</sub>. Hydrogen sulfide (H<sub>2</sub>S).



	<b>SAFETY DATA SHEET</b>	Page : 9 / 14
		Revision nr : 2.1
	<b>Granular Sulphur</b>	Issue date : 26/02/2018
		Supersedes : 12/09/2016

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)

sulfur (7704-34-9)	
LD50/oral/rat	> 2000 mg/kg
LD50/dermal/rat	> 2000 mg/kg
LD50/dermal/rabbit	> 2000 mg/kg
LC50/inhalation/4h/rat	> 5430 mg/m <sup>3</sup>
LC50 inhalation rat (Vapours - mg/l/4h)	5,43 mg/l/4h

Hydrogen sulphide (H2S) (7783-06-4)	
LC50/inhalation/4h/rat	0,99 mg/l (Exposure time: 1h)

Skin corrosion/irritation : Causes skin irritation.  
pH: No data available

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met.)  
pH: No data available

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met.)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met.)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met.)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

Other information : Symptoms related to the physical, chemical and toxicological characteristics.  
Reference to other sections: 4.2.

## SECTION 12: Ecological information

### 12.1. Toxicity

Environmental properties : not hazardous.

sulfur (7704-34-9)	
LC50 fish 1	866 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
LC50 fish 2	< 14 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

Hydrogen sulphide (H2S) (7783-06-4)	
LC50 fish 1	0,0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
EC50 Daphnia 1	0,022 mg/l
LC50 fish 2	0,016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])


### 12.2. Persistence and degradability

Granular Sulphur (7704-34-9)	
Persistence and degradability	Expected to be biodegradable.

### 12.3. Bioaccumulative potential

Granular Sulphur (7704-34-9)	
Partition coefficient n-octanol/water	No data available
Bioaccumulative potential	Low potential.

Hydrogen sulphide (H2S) (7783-06-4)	
Partition coefficient n-octanol/water	0,45 (at 25 °C)

	<b>SAFETY DATA SHEET</b>	Page : 10 / 14
		Revision nr : 2.1
	<b>Granular Sulphur</b>	Issue date : 26/02/2018
		Supersedes : 12/09/2016

#### 12.4. Mobility in soil

<b>Granular Sulphur (7704-34-9)</b>	
Ecology - soil	Not applicable.

#### 12.5. Results of PBT and vPvB assessment

No data available

#### 12.6. Other adverse effects

No data available






### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Handle with care. Safe handling: see section 7. Handling and storage. Refer to manufacturer/supplier for information on recovery/recycling. Collect and dispose of waste product at an authorised disposal facility. Dispose of contaminated materials in accordance with current regulations.
Additional information	: Never use pressure to empty container. Do not burn, or use a cutting torch on the empty drum. Do not puncture or incinerate. Delivery to an approved waste disposal company. Dispose of contaminated materials in accordance with current regulations.
European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC)	: Classified as hazardous waste according to European Union regulations. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

### SECTION 14: Transport information


In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
1350	1350	1350	1350	1350
<b>14.2. UN proper shipping name</b>				
SULPHUR	SULPHUR	Sulphur	SULPHUR	SULPHUR
<b>Transport document description</b>				
UN 1350 SULPHUR, 4.1, III, (E)	UN 1350 SULPHUR, 4.1, III	UN 1350 Sulphur, 4.1, III	UN 1350 SULPHUR, 4.1, III	UN 1350 SULPHUR, 4.1, III
<b>14.3. Transport hazard class(es)</b>				
4.1	4.1	4.1	4.1	4.1
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

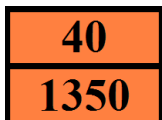
#### 14.6. Special precautions for user

##### - Overland transport

Classification code (ADR)	: F3
Special provisions	: 242
Limited quantities (ADR)	: 5kg

	<b>SAFETY DATA SHEET</b>	Page : 11 / 14
		Revision nr : 2.1
	<b>Granular Sulphur</b>	Issue date : 26/02/2018
		Supersedes : 12/09/2016

Excepted quantities (ADR) : E1  
 Packing instructions (ADR) : P002, IBC08, LP02, R001  
 Special packing provisions (ADR) : B3  
 Mixed packing provisions (ADR) : MP11  
 Portable tank and bulk container instructions (ADR) : T1, BK1, BK2  
 Portable tank and bulk container special provisions (ADR) : TP33  
 Tank code (ADR) : SGAV  
 Vehicle for tank carriage : AT  
 Transport category (ADR) : 3  
 Special provisions for carriage - Bulk (ADR) : VC1, VC2  
 Hazard identification number (Kemler No.) : 40  
 Orange plates :




Tunnel restriction code : E  
 EAC code : 1Z

**- Transport by sea**

Special provisions (IMDG) : 242, 967  
 Limited quantities (IMDG) : 5 kg  
 Excepted quantities (IMDG) : E1  
 Packing instructions (IMDG) : P002, LP02  
 IBC packing instructions (IMDG) : IBC08  
 IBC special provisions (IMDG) : B3  
 Tank instructions (IMDG) : T1, BK2, BK3  
 Tank special provisions (IMDG) : TP33  
 EmS-No. (Fire) : F-A  
 EmS-No. (Spillage) : S-G  
 Stowage category (IMDG) : A  
 Stowage and handling (IMDG) : SW1, SW23  
 Segregation (IMDG) : SG17  
 Properties and observations (IMDG) : When involved in a fire, evolves toxic, very irritating and suffocating gas. The dust forms an explosive mixture with air which may be ignited by static electricity. Forms explosive mixtures with oxidizing substances. Corrosive to steel, in particular in the presence of moisture. The provisions of this Code should not apply to sulphur when it is formed to a specific shape (such as prills, granules, pellets, pastilles or flakes).

**- Air transport**

PCA Excepted quantities (IATA) : E1  
 PCA Limited quantities (IATA) : Y443  
 PCA limited quantity max net quantity (IATA) : 10kg  
 PCA packing instructions (IATA) : 446  
 PCA max net quantity (IATA) : 25kg  
 CAO packing instructions (IATA) : 449  
 CAO max net quantity (IATA) : 100kg  
 Special provisions (IATA) : A105  
 ERG code (IATA) : 3L

	<b>SAFETY DATA SHEET</b>	Page : 12 / 14
	<b>Granular Sulphur</b>	Revision nr : 2.1
Issue date : 26/02/2018		
Supersedes : 12/09/2016		

#### - Inland waterway transport

Classification code (ADN) : F3  
 Special provisions (ADN) : 242  
 Limited quantities (ADN) : 5 kg  
 Excepted quantities (ADN) : E1  
 Carriage permitted (ADN) : B  
 Equipment required (ADN) : PP  
 Number of blue cones/lights (ADN) : 0

#### - Rail transport

Classification code (RID) : F3  
 Special provisions (RID) : 242  
 Limited quantities (RID) : 5kg  
 Excepted quantities (RID) : E1  
 Packing instructions (RID) : P002, IBC08, LP02, R001  
 Special packing provisions (RID) : B3  
 Mixed packing provisions (RID) : MP11  
 Portable tank and bulk container instructions (RID) : T1, BK1, BK2  
 Portable tank and bulk container special provisions (RID) : TP33  
 Tank codes for RID tanks (RID) : SGAV  
 Transport category (RID) : 3  
 Special provisions for carriage – Packages (RID) : W1  
 Special provisions for carriage – Bulk (RID) : VC1, VC2  
 Colis express (express parcels) (RID) : CE11  
 Hazard identification number (RID) : 40

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

Not applicable

### **SECTION 15: Regulatory information**

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

##### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Hydrogen sulphide (H2S)
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Granular Sulphur is not on the REACH Candidate List

Granular Sulphur is not on the REACH Annex XIV List

##### 15.1.2. National regulations

#### Germany

Reference to AwSV : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 753)

	<b>SAFETY DATA SHEET</b>	Page : 13 / 14
		Revision nr : 2.1
	<b>Granular Sulphur</b>	Issue date : 26/02/2018
		Supersedes : 12/09/2016

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed  
 SZW-lijst van mutagene stoffen : The substance is not listed  
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed  
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed  
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out

### SECTION 16: Other information

Indication of changes:

1		Modified	
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Abbreviations and acronyms:

	ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods Code LEL = Lower Explosive Limit/Lower Explosion Limit UEL = Upper Explosion Limit/Upper Explosive Limit REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
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Sources of key data used to compile the datasheet : ECHA (European Chemicals Agency). ECB. Supplier msds. Information Supplier. European Chemicals Agency LOLI.


Training advice : Manipulations are to be done only by qualified and authorised persons. Normal use of this product shall imply use in accordance with the instructions on the packaging. Training staff on good practice.

Full text of H- and EUH-statements:

Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Aquatic Acute 1	Hazardous to the aquatic environment - Aquatic Acute 1
Flam. Gas 1	Flammable gases, hazard category 1
Press. Gas	Gases under pressure
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H220	Extremely flammable gas.
H315	Causes skin irritation.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
 Classification according to Regulation (EC) No. 1272/2008 [CLP]  
 Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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 NIS GAZPROM NEFT	<b>SAFETY DATA SHEET</b>	Page : 14 / 14
	<b>Granular Sulphur</b>	Revision nr : 2.1
Issue date : 26/02/2018		
Supersedes : 12/09/2016		

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