

# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)

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Print date: 03/01/2022

## Phosphorescent Pigment GSS

Version: 8

Revision date: 03/01/2022

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING.

#### 1.1 Product identifier.

Product Name: Phosphorescent Pigment GSS  
Chemical Name: Zinc sulfide (ZnS), copper chloride-doped  
CAS No: 68611-70-1  
EC No: 271-904-2  
Registration No: 01-2119978290-33-0000

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

Manufacture of thermoplastics (Industrial use)  
Use in coatings, paints and inks (Industrial, Professional, Consumer use)  
Calendering/Extrusion (Industrial use)  
Industrial Spraying (Industrial use)  
Masterbatch additive (Industrial use)

#### Uses advised against:

Uses other than those recommended.

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

Company:  
Address:  
Province:  
Telephone:  
Fax:  
E-mail:  
Web:

#### 1.4 Emergency telephone number:

### SECTION 2: HAZARDS IDENTIFICATION.

#### 2.1 Classification of the substance.

The product is not classified as hazardous within the meaning of Regulation (EU) No 1272/2008.

#### 2.2 Label elements.

Labelling according to Regulation (EC) No 1272/2008: Not applicable.  
Hazard pictograms: Not applicable.  
Signal word: Not applicable.  
Hazard statements: Not applicable.

#### 2.3 Other hazards.

The product may have the following additional risks:  
Contact with acids liberates toxic gas.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

#### 3.1 Substances.

Chemical Name: Zinc sulfide (ZnS), copper chloride-doped  
CAS No: 68611-70-1  
EC No: 271-904-2  
Registration No: 01-2119978290-33-0000

#### 3.2 Mixtures.

Not Applicable.

### SECTION 4: FIRST AID MEASURES.

#### 4.1 Description of first aid measures.

Due to the composition and type of the substances present in the product, no particular warnings are necessary.

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### Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

### Eye contact.

Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Don't let the person to rub the affected eye.

### Skin contact.

Remove contaminated clothing.

### Ingestion.

Keep calm. NEVER induce vomiting.

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

No known acute or delayed effects from exposure to the product.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

## SECTION 5: FIREFIGHTING MEASURES.

This product is a non-combustible material.

### **5.1 Extinguishing media.**

#### Suitable extinguishing media:

Normal extinguishing agents may be used if the substance is involved in a fire.

#### Unsuitable extinguishing media:

In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

### **5.2 Special hazards arising from the substance.**

#### Special risks.

The formation of toxic gases is possible during heating or in case of fire:

Sulfur dioxide (SO<sub>2</sub>)

Hydrogen sulfide (H<sub>2</sub>S)

### **5.3 Advice for firefighters.**

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account.

#### Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

## SECTION 6: ACCIDENTAL RELEASE MEASURES.

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

For exposure control and individual protection measures, see section 8.

### **6.2 Environmental precautions.**

Product not classified as hazardous for the environment, avoid spillage as much as possible.

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

The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

### **6.4 Reference to other sections.**

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

## SECTION 7: HANDLING AND STORAGE.

### **7.1 Precautions for safe handling.**

The product does not require special handling measures, the following general measures are recommended:

For personal protection, see section 8.

In the application area, smoking, eating, and drinking must be prohibited.

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Follow legislation on occupational health and safety.

Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

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

The product does not require special storage measures.

As general storage measures, sources of heat, radiation, electricity and contact with food should be avoided.

Keep away from oxidising agents and from highly acidic or alkaline materials.

Store the containers between 5 and 35° C, in a dry and well-ventilated place.

Store according to local legislation. Observe indications on the label.

The product is not affected by Directive 2012/18/EU (SEVESO III).

### 7.3 Specific end use(s).

No further relevant information available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

### 8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Type	Value
Zinc sulfide (ZnS), copper chloride-doped CAS No: 68611-70-1 EC No: 271-904-2	DNEL (General population)	Oral, Long-term, Systemic effects	0,83 (mg/Kg bw/day)
	DNEL (General population)	Dermal, Long-term, Systemic effects	83 (mg/Kg bw/day)
	DNEL (Workers)	Inhalation, Long-term, Systemic effects	5 (mg/m <sup>3</sup> )
	DNEL (General population)	Inhalation, Long-term, Systemic effects	2,5 (mg/m <sup>3</sup> )

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

Concentration levels PNEC:

Name	Details	Value
Zinc sulfide (ZnS), copper chloride-doped CAS No: 68611-70-1 EC No: 271-904-2	PNEC STP	52 (µg/l)
	PNEC Water (Freshwater)	20,6 (µg/l)
	PNEC Water (Marine water)	6,1 (µg/l)
	PNECsediment (Freshwater)	117,8 (mg/Kg sediment dw)
	PNECsediment (Marine water)	56,5 (mg/Kg sediment dw)
	PNECsoil	35,6 (mg/Kg soil dw)

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

### 8.2 Exposure controls.

#### Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

<b>Concentration:</b>	<b>100 %</b>
<b>Uses:</b>	<b>Manufacture of thermoplastics (Industrial use) Use in coatings, paints and inks (Industrial, Professional, Consumer use) Calendering/Extrusion (Industrial use) Industrial Spraying (Industrial use) Masterbatch additive (Industrial use)</b>
<b>Breathing protection:</b>	
PPE:	Particle filter mask
Characteristics:	«CE» marking, category III. Made of filtering material, it covers nose, mouth and chin.
CEN standards:	EN 149
Maintenance:	Check for any tears, defects, etc. before use. Since it is disposable individual protection equipment, it should be replaced after use.
Observations:	Does not protect worker unless properly adjusted. Follow the manufacturer's instructions regarding suitable use of the equipment.
Filter Type needed:	P2



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Hand protection:					
PPE:	Protective gloves.				
Characteristics:	«CE» marking, category II.				
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420				
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.				
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.				
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480	Material thickness (mm):	0,35
Eye protection:					
PPE:	Protective goggles against particle impacts.				
Characteristics:	«CE» marking, category II. Eye protector against dust and smoke.				
CEN standards:	EN 165, EN 166, EN 167, EN 168				
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.				
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.				
Skin protection:					
PPE:	Protective clothing.				
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.				
CEN standards:	EN 340				
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.				
Observations:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.				
PPE:	Work footwear.				
Characteristics:	«CE» marking, category II.				
CEN standards:	EN ISO 13287, EN 20347				
Maintenance:	This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.				
Observations:	Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident				

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

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

Appearance: Powder

Colour: Yellow Green

Odour: Odourless.

Odour threshold: N.A./N.A.

pH: N.A./N.A.

Melting point: > 401,5 °C

Boiling Point: N.A./N.A.

Flash point: N.A./N.A.

Evaporation rate: N.A./N.A.

Inflammability (solid, gas): Product is not flammable.

Lower Explosive Limit: N.A./N.A.

Upper Explosive Limit: N.A./N.A.

Vapour pressure: N.A./N.A.

Vapour density: N.A./N.A.

Relative density: 1,78

Solubility: < 1,002.e-3 g/l (Zinc Compound)

Liposolubility: N.A./N.A.

Hydrosolubility: N.A./N.A.

Partition coefficient (n-octanol/water): N.A./N.A.

Auto-ignition temperature: > 400°C

Decomposition temperature: N.A./N.A.

Viscosity: N.A./N.A.

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Explosive properties: N.A./N.A.  
Oxidizing properties: N.A./N.A.  
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

### 9.2 Other information.

Pour point: N.A./N.A.  
Blink: N.A./N.A.  
Kinematic viscosity: N.A./N.A.  
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

## SECTION 10: STABILITY AND REACTIVITY.

### 10.1 Reactivity.

No further relevant information available.

### 10.2 Chemical stability.

Thermal decomposition / conditions to be avoided:  
No decomposition if used and stored according to specifications.

### 10.3 Possibility of hazardous reactions.

Reacts with acids.

### 10.4 Conditions to avoid.

Avoid temperatures above 800°C.

### 10.5 Incompatible materials.

Keep away from acids.

### 10.6 Hazardous decomposition products.

Sulfur Oxides (SO<sub>x</sub>)  
Hydrogen sulphide

## SECTION 11: TOXICOLOGICAL INFORMATION.

### 11.1 Information on toxicological effects.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.  
Splatters in the eyes can cause irritation and reversible damage.

### Toxicological information.

Name	Acute toxicity			
	Type	Test	Kind	Value
Zinc sulfide (ZnS), copper chloride-doped  CAS No: 68611-70-1    EC No: 271-904-2	Oral	LD50	Rat	> 2000 mg/Kg
		LOAEL	Rat	50 mg/Kg bw/day [1]
		NOAEL	Rat	20 mg/Kg bw/day [2]
		NOAEL	Rat	13.3 mg/Kg bw/day [3]
		[1] Developmental toxicity		
		[2] Fertility		
	[3] Subchronic			
Dermal	LD50	Rat	> 2000 mg/Kg	
Inhalation	LC50	Rat	5.41 mg/m <sup>3</sup>	
	NOAEC	Rat	2.7 mg/m <sup>3</sup> [1]	
	[1] Subacute			

Primary irritant effect

on the skin:

No irritant effect.

on the eye:

No irritating effect known.

Sensitization:

No sensitizing effects known.

Germ cell mutagenicity:

Negative.

Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

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### SECTION 12: ECOLOGICAL INFORMATION.

#### 12.1 Toxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
Zinc sulfide (ZnS), copper chloride-doped  CAS No: 68611-70-1    EC No: 271-904-2	Fish	LD50	Rat	> 2000 mg/Kg
		LOAEL	Rat	50 mg/Kg bw/day [1]
		NOAEL	Rat	20 mg/Kg bw/day [2]
		NOAEL	Rat	13.3 mg/Kg bw/day [3]
		[1] Developmental toxicity		
	[2] Fertility			
	[3] Subchronic			
	Aquatic invertebrates	LD50	Rat	> 2000 mg/Kg
	Aquatic plants	LC50	Rat	5.41 mg/m <sup>3</sup>
		NOAEC	Rat	2.7 mg/m <sup>3</sup> [1]
		[1] Subacute		

#### 12.2 Persistence and degradability.

No information is available regarding the biodegradability.

No information is available on the degradability.No information is available about persistence and degradability of the product.

#### 12.3 Bioaccumulative potential.

No information is available regarding the bioaccumulation.

#### 12.4 Mobility in soil.

No information is available about the mobility in soil.

The product must not be allowed to go into sewers or waterways.

Prevent penetration into the ground.

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

No information is available about the results of PBT and vPvB assessment of the product.

#### 12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

### SECTION 13 DISPOSAL CONSIDERATIONS.

#### 13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Follow the provisions of Directive 2008/98/EC regarding waste management.

Waste classification according to the European Waste Catalogue:

06 WASTES FROM INORGANIC CHEMICAL PROCESSES

06 03 wastes from the MFSU of salts and their solutions and metallic oxides

06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

### SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

#### 14.1 UN number.

Transportation is not dangerous.

#### 14.2 UN proper shipping name.

Description:

ADR:                   Transportation is not dangerous.

IMDG:                 Transportation is not dangerous.

ICAO/IATA:           Transportation is not dangerous.

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

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### 14.4 Packing group.

Transportation is not dangerous.

### 14.5 Environmental hazards.

Transportation is not dangerous.

### 14.6 Special precautions for user.

Transportation is not dangerous.

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

Transportation is not dangerous.

## SECTION 15: REGULATORY INFORMATION.

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

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

Product classification according to Annex I of Directive 2012/18/EU (SEVESO III): N/A

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

Kind of pollutant for the water (Germany): WGK 2: Hazardous for the water.

### 15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16: OTHER INFORMATION.

Sections changed compared with the previous version: 1,5,10,11,14,16

It is recommended that the product only be employed for the purposes advised.

Abbreviations and acronyms used:

AwSV: Facility Regulations for handling substances that are hazardous for the water.

CEN: European Committee for Standardization.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

PPE: Personal protection equipment.

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

WGK: Water hazard classes.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (EU) 2015/830.

Regulation (EC) No 1907/2006.

Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.