

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 6 Dec 2024

Print date: 6 Dec 2024

Version: 2.0



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Blacking Gel Instant Black

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

1.1 Product identifier

Trade name/designation:

Blacking Gel Instant Black

UFI:

KH00-60XY-J00H-TMMG

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

Use of the substance/mixture:

Plating agents and metal surface treating agents
Nickel-free blacking solution for steel, iron, cast iron

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

LUPUS-Professional

Hochstraße 150

47877 Willich

GERMANY

Telephone: +49 (0) 21 54 - 81 25 93

Telefax: +49 (0) 21 54 - 81 25 94

E-mail: info@lupus-pro.de

Website: www.lupus-pro.de

E-mail (competent person): info@lupus-pro.de

1.4 Emergency phone number

24h: +49 (0) 551 19240 (german and english)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation (<i>Skin Irrit. 2</i>)	H315: Causes skin irritation.	Calculation
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	Calculation
Hazardous to the aquatic environment (<i>Aquatic Chronic 2</i>)	H411: Toxic to aquatic life with long lasting effects.	Calculation

2.2 Label elements

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

Hazard pictograms:



GHS07

Exclamation mark



GHS09

Environment

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Signal word: Warning

Hazard statements for health hazards

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Hazard statements for environmental hazards

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements - General

P102 Keep out of reach of children.

Precautionary statements - Prevention

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing and eye protection/face protection.

Precautionary statements - Response

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary statements - Disposal

P501 Dispose of contents/container to hazardous or special waste collection point.

2.3 Other hazards

Adverse human health effects and symptoms:

May cause eye irritation. May cause skin irritation.




SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description:

inorganic salts in aqueous solution

Ingredients:

Product identifiers	Substance name Classification according to Regulation (EC) No. 1272/2008 [CLP]	Content
CAS No.: 7758-98-7 EC No.: 231-847-6 Index No.: 029-004-00-0 REACH No.: 01-2119520556-40	copper sulphate Acute Tox. 4 (H302), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Eye Irrit. 2 (H319), Skin Irrit. 2 (H315)  Warning Acute Toxicity Estimate ATE (oral) 500 mg/kg	< 5 weight-%
CAS No.: 7446-08-4 EC No.: 231-194-7	selenium dioxide Acute Tox. 3 (H301, H331), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), STOT RE 2 (H373)  Danger Acute Toxicity Estimate ATE (oral) 100 mg/kg ATE (inhalation, vapour) 3 mg/L ATE (inhalation, dust/mist) 0.5 mg/L	< 1 weight-%
CAS No.: 7789-29-9 EC No.: 232-156-2 Index No.: 009-008-00-9	potassium hydrogendifluoride Acute Tox. 3 (H301), Skin Corr. 1B (H314)  Danger Specific concentration limit (SCL) Skin Corr. 1B; H314: $C \geq 1\%$ Skin Irrit. 2; H315: $0.1\% \leq C < 1\%$ Eye Dam. 1; H318: $C \geq 1\%$ Eye Irrit. 2; H319: $0.1\% \leq C < 1\%$ Acute Toxicity Estimate ATE (oral) 100 mg/kg	< 1 weight-%

Full text of H- and EUH-phrases: see section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended. Warning First aider: Pay attention to self-protection!

Following inhalation:

Provide fresh air. Get medical advice/attention if you feel unwell.

In case of skin contact:

Take off contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

After eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Following ingestion:

Rinse mouth. Let water be drunken in little sips (dilution effect). Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

May cause eye irritation. May cause skin irritation.

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:

Coordinate fire-fighting measures to the fire surroundings.

5.2 Special hazards arising from the substance or mixture

The product is not combustible

Hazardous combustion products:

In case of fire may be liberated: Gases/vapours, toxic

5.3 Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Personal precautions:

Avoid contact with skin, eyes and clothes. Special danger of slipping by leaking/spilling product. Remove persons to safety.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection. See section 8.

6.1.2 For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2 Environmental precautions

Do not allow to enter into surface water or drains.
Do not allow to enter into soil/subsoil.

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6.3 Methods and material for containment and cleaning up

For containment:

Wipe with absorbent material (e.g. cloth, fleece). Handling larger quantities: Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

For cleaning up:

Water

6.4 Reference to other sections

Safe handling: see section 7.

Personal protection equipment: see section 8.

Disposal: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Advices on safe handling:

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Wear personal protection equipment (refer to section 8).

Fire prevent measures:

No special measures are necessary.

Environmental precautions:

Discharge into the environment must be avoided.

Advices on general occupational hygiene

When using do not eat, drink or smoke. Wash hands and face before breaks and after work and take a shower if necessary. Apply skin care products after work.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed. Store in a cool dry place. Keep away from heat. Protect from sunlight.

Requirements for storage rooms and vessels:

Floors should be impervious, resistant to liquids and easy to clean. Keep/Store only in original container.

Hints on storage assembly:

Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

Recommendation:

Plating agents and metal surface treating agents

Observe instructions for use.

SECTION 8: Exposure controls / Personal protection

8.1 Control Parameters

8.1.1 Occupational exposure limit values

Limit value type (country)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
WEL (GB)	copper sulphate CAS No.: 7758-98-7 EC No.: 231-847-6	① 0.2 mg/m ³ ⑤ (Smoke)
WEL (GB)	copper sulphate CAS No.: 7758-98-7 EC No.: 231-847-6	① 1 mg/m ³ ② 2 mg/m ³ ⑤ (Dusts and mist calculated as Cu)

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Limit value type (country)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
WEL (GB) from 5 Sept 2022	selenium dioxide CAS No.: 7446-08-4 EC No.: 231-194-7	① 0.1 mg/m ³

8.1.2 Biological limit values

No data available.

8.1.3 DNEL-/PNEC-values

No data available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

See section 7. No additional measures necessary.

8.2.2 Personal protection equipment



Eye/face protection:

Eye glasses with side protection (EN 166).

Skin protection:

Wear suitable gloves (EN ISO 374).

Suitable material: NBR (Nitrile rubber)

Material thickness: $\geq 0,11$ mm

Breakthrough time: ≥ 480 min

Breakthrough times and swelling properties of the material must be taken into consideration. Check leak tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Respiratory protection:

Usually no personal respiratory protection necessary. Provide adequate ventilation. If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Filtering device (full mask or mouthpiece) with filter: E-P2

Other protection measures:

Wear suitable protective clothing.

8.2.3 Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: liquid

Form: liquid

Colour: light blue

Odour: slightly perceptible

Flammability: No

Safety relevant basic data

Parameter	Value	at	① Method ② Remark
pH	4	20 °C	
Melting point	No data available.		
Freezing point	No data available.		
Initial boiling point and boiling range	> 100 °C		

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Parameter	Value	at	① Method ② Remark
Flash point	<i>Not applicable.</i>		
Evaporation rate	<i>No data available.</i>		
Auto-ignition temperature	<i>Not applicable.</i>		
Upper/lower Flammability or explosive limits	<i>Not applicable.</i>		
Vapour pressure	23 hPa	20 °C	
Vapour density	<i>No data available.</i>		
Density	1 - ≈ 1.5 g/cm ³	20 °C	
Bulk density	<i>Not applicable.</i>		
Water solubility	completely miscible		
Dynamic viscosity	<i>No data available.</i>		
Kinematic viscosity	<i>No data available.</i>		

9.2 Other information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

The product is not combustible

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Heat, UV-radiation/sunlight.

10.5 Incompatible materials

Oxidising agent, strong; strong acid.

10.6 Hazardous decomposition products

No known hazardous decomposition products. In case of fire may be liberated: Gases/vapours, toxic

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

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

Acute dermal toxicity:

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

Acute inhalation toxicity:

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

Skin corrosion/irritation:

Causes skin irritation.

Serious eye damage/irritation:

May causes serious eye irritation.

Respiratory or skin sensitisation:

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

Germ cell mutagenicity:

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

Carcinogenicity:

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

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Reproductive toxicity:

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

STOT-single exposure:

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

STOT-repeated exposure:

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

Aspiration hazard:

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

11.2 Information on other hazards

Endocrine disrupting properties:

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Toxic to aquatic life with long lasting effects.

Additional ecotoxicological information:

No data available.

12.2 Persistence and degradability

Biodegradation:

No data available.

12.3 Bioaccumulative potential

Accumulation / Evaluation:

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Completely emptied packages can be recycled.

Other disposal recommendations:

The allocation of waste code numbers / waste names must be carried out in accordance with the European Waste Catalogue (EWC). Do not allow to enter into surface water or drains. Collect in closed and suitable containers for disposal. Waste for disposal is to be classified and labelled.

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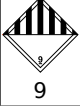
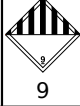
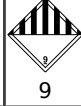
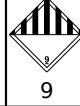




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SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI-/IATA-DGR)
14.1 UN number or ID number			
UN 3082	UN 3082	UN 3082	UN 3082
14.2 UN proper shipping name			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER SULPHATE, SELENIUM DIOXIDE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER SULPHATE, SELENIUM DIOXIDE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER SULPHATE, SELENIUM DIOXIDE)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER SULPHATE, SELENIUM DIOXIDE)
14.3 Transport hazard class(es)			
 9	 9	 9	 9
14.4 Packing group			
III	III	III	III
14.5 Environmental hazards			
		 MARINE POLLUTANT	
14.6 Special precautions for user			
No data available.	No data available.	No data available.	No data available.

14.7 Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information

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

15.1.1 EU legislation

Authorisations:

Contains no substances listed in REACH Annex XIV.

Restrictions on use:

Contains no substances subject to the restrictions of Annex XVII of the REACH Regulation.

Other regulations (EU):

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

The product does not contain substances of very high concern (SVHC) $\geq 0,1$ %.

VOC content (EU): 0,00 %

15.1.2 National regulations

No data available.

15.2 Chemical Safety Assessment

No data available.

SECTION 16: Other information

16.1 Indication of changes

Changes executed in version 2.0:

Section 1: UFI

Section 2: Hazard(s) Identification

Section 3: Composition/Information on Ingredients

Section 9: Physical and Chemical Properties

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Section 11: Toxicological Information
Section 12: Ecological Information (non-mandatory)
Section 14: Transport Information (non-mandatory)
Section 15: Regulatory Information (non-mandatory)
General revision

16.2 Abbreviations and acronyms

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC₅₀ = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
ELINCS = European List of Notified Chemical Substances
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC₅₀ = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform Chemical Information Database
LC₅₀ = Lethal concentration, 50%
LD₅₀ = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Content
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Content
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value - time-weighted average
TLV®STEL = Threshold limit value - short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Key literature references and sources for data

European Chemicals Agency (ECHA): <https://www.echa.europa.eu>
ECHA, C&L Inventory: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database>
ECHA, Registered substances: <https://echa.europa.eu/information-on-chemicals/registered-substances>
GESTIS, Information system on hazardous substances: <https://www.gestis.dguv.de/search>
GESTIS, International Limit Values: <https://limitvalue.ifa.dguv.de>
Hörath Gefährliche Stoffe und Gemische, 8. Auflage, Dr. Angela Schulz
Safety data sheets of the manufacturers

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No. 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation (<i>Skin Irrit. 2</i>)	H315: Causes skin irritation.	Calculation
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	Calculation

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Hazard classes and hazard categories	Hazard statements	Classification procedure
Hazardous to the aquatic environment (<i>Aquatic Chronic 2</i>)	H411: Toxic to aquatic life with long lasting effects.	Calculation

16.5 List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements	
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

16.6 Training advice

No data available.

16.7 Additional information

The information in this safety data sheet has been established to our best knowledge and was up-to-date at time of revision. The information is intended to give you advice about the safe handling of the product for storage, processing, transport and disposal. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.