

## 1 Identification

- **Product identifier**
- **Trade name:** **LUSTRE DARK BLUE 130F**
- **Article number:** 88028000
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available
- **Application of the substance / the mixture**  
Decoration materials or decoration aids for glass or porcelain ware.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Heraeus Precious Metals GmbH & Co. KG  
Heraeusstr. 12-14  
D-63450 Hanau
- **Information department:**  
Electronic Materials Division  
Telefon: 0049 6181-35 4217  
Telefax: 0049 6181-35 16 4217  
Mail: tfd-msds@heraeus.com
- **Emergency telephone number:**  
24-h-Number:  
0049 6132-84463

## 2 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Chemical Mixture

· **Dangerous components:**

8006-64-2	Turpentine, oil	25-50%
8016-78-2	spike oil	25-50%
8050-09-7	Rosin	5-10%
67874-71-9	Hexanoic acid, 2-ethyl-, bismuth(3+) salt	5-10%
5593-70-4	titanium tetrabutanolate	2.5-5%
141-78-6	ethyl acetate	2.5-5%
64742-88-7	Solvent naphtha (petroleum), medium aliph.	≤ 2,5%
64742-95-6	Solvent naphtha (petroleum), light arom.	≤ 0,5%

## 3 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.  
STOT SE 2 H371 May cause damage to organs.  
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

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GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

**Label elements**

**GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**



GHS02



GHS05



GHS07



GHS08

**Signal word** Danger

**Hazard-determining components of labeling:**

Turpentine, oil  
titanium tetrabutanolate  
spike oil  
Rosin

**Hazard statements**

H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H361 Suspected of damaging fertility or the unborn child.  
H371 May cause damage to organs.  
H304 May be fatal if swallowed and enters airways.

**Precautionary statements**

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:**

**NFPA ratings (scale 0 - 4)**



Health = 2  
Fire = 3  
Reactivity = 0

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**HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
	3	Fire = 3
REACTIVITY	0	Reactivity = 0

### 4 First-aid measures

**General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:** Immediately call a doctor.

### 5 Fire-fighting measures

**Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

**For safety reasons unsuitable extinguishing agents:**

Water

Water with full jet

**Special hazards arising from the substance or mixture** No further relevant information available.

**Protective equipment:** Mount respiratory protective device.

### 6 Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective clothing.

**Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### 7 Handling and storage

**Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Prevent from drying out.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.

**Components with limit values that require monitoring at the workplace:**

<b>8006-64-2 Turpentine, oil</b>	
PEL ()	Long-term value: 560 mg/m <sup>3</sup> , 100 ppm
REL ()	Long-term value: 560 mg/m <sup>3</sup> , 100 ppm
TLV ()	Long-term value: 112 mg/m <sup>3</sup> , 20 ppm (SEN) NIC-DSEN
<b>8050-09-7 Rosin</b>	
TLV ()	(SEN); L NIC-DSEN, RSEN
<b>141-78-6 ethyl acetate</b>	
PEL ()	Long-term value: 1400 mg/m <sup>3</sup> , 400 ppm
REL ()	Long-term value: 1400 mg/m <sup>3</sup> , 400 ppm
TLV ()	Long-term value: 1440 mg/m <sup>3</sup> , 400 ppm
<b>Additional Occupational Exposure Limit Values for possible hazards during processing:</b>	
<b>8006-64-2 Turpentine, oil</b>	
PEL ()	Long-term value: 560 mg/m <sup>3</sup> , 100 ppm
REL ()	Long-term value: 560 mg/m <sup>3</sup> , 100 ppm
TLV ()	Long-term value: 112 mg/m <sup>3</sup> , 20 ppm (SEN) NIC-DSEN
<b>138-86-3 dipentene</b>	
WEEL ()	Long-term value: 30 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
Use suitable respiratory protective device in case of insufficient ventilation.  
Filter A2B2P3
- **Protection of hands:**



Protective gloves

Only use chemical-protective gloves with CE-labeling of category III.  
Check protective gloves prior to each use for their proper condition.  
After use of gloves apply skin-cleaning agents and skin cosmetics.

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**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

For short use and minimal soiling we recommend disposable protective gloves made of special nitrile.

For longer use and stronger soiling we recommend 4H-Chemicals-Protective-Gloves from the company SETON.

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**



Tightly sealed goggles

**Body protection:** Protective work clothing

### 9 Physical and chemical properties

**General Information**

**Appearance:**

Form:	Fluid
Color:	Red-brown
Odor:	Aromatic
Odour threshold:	Not determined.

pH-value: Not determined

**Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

Flash point: 28 °C (82 °F) (DIN 13736)

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 220 °C (428 °F)

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**Explosion limits:**

Lower:	0.8 Vol %
Upper:	6.0 Vol %

Vapor pressure at 20 °C (68 °F): 5.4 hPa (4 mm Hg)

Density: Not determined.

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

**Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

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<b>· Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>· Solvent content:</b>	
<b>Organic solvents:</b>	34.1 %
<b>Water:</b>	0.0 %
<b>· Solids content:</b>	
	31.2 %
<b>· Other information</b>	
	No further relevant information available.

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.  
( < 100 °C )
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

<b>8006-64-2 Turpentine, oil</b>		
Oral	LD50	5760 mg/kg (rat)
<b>8050-09-7 Rosin</b>		
Oral	LD50	>2800 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
<b>5593-70-4 titanium tetrabutolate</b>		
Oral	LD50	3122 mg/kg (rat)
<b>141-78-6 ethyl acetate</b>		
Oral	LD50	5620 mg/kg (rbt)
Dermal	LD50	> 18000 mg/kg (rabbit)
Inhalative	LC50/1h	200 mg/l (rat)
	LC50/4 h	1600 mg/l (rat)
<b>64742-88-7 Solvent naphtha (petroleum), medium aliph.</b>		
Oral	LD50	>6500 mg/kg (rat)
Dermal	LD50	>3000 mg/kg (rabbit)
Inhalative	LC50/4 h	>14 mg/l (rat)
<b>64742-95-6 Solvent naphtha (petroleum),light arom.</b>		
Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 3160 mg/kg (rabbit)
Inhalative	LC50/4 h	> 5.2 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

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· **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

108-94-1	cyclohexanone	3
140-11-4	benzyl acetate	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

### 12 Ecological information

· **Aquatic toxicity:**

**8006-64-2 Turpentine, oil**

EC50 14.1 mg/l (daphnia)

**141-78-6 ethyl acetate**

EC10/18h 2900 mg/l (bak)

EC50/48h 717 mg/l (daphnia)

IC50/48h 3300 mg/l (algae)

LC50/48h 333 mg/l (fish)

LC50/96h 230 mg/l (fish)

**64742-95-6 Solvent naphtha (petroleum),light arom.**

EC50/96h 19 mg/l (algae)

LC50/48h 6.14 mg/l (daphnia)

LC50/96h 9.22 mg/l (fish)

· **Persistence and degradability** No further relevant information available.

· **Bioaccumulative potential** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (in accordance with VwVwS from 15.05.1999): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

### 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

· **Uncleaned packagings:**

· **Recommendation:** Contact manufacturer for recycling information.

### 14 Transport information

· **UN-Number**





· **DOT, ADR, IMDG, IATA**

UN1263

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- UN proper shipping name	Paint
- DOT	1263 Paint, special provision 640E, ENVIRONMENTALLY HAZARDOUS
- ADR	PAINT (TURPENTINE, spike oil), MARINE POLLUTANT PAINT
- IMDG	
- IATA	
- Transport hazard class(es)	
- DOT	
	
- Class	3 Flammable liquids.
- Label	3
- ADR, IMDG	
 	
- Class	3 Flammable liquids
- Label	3
- IATA	
	
- Class	3 Flammable liquids.
- Label	3
- Packing group	III
- DOT, ADR, IMDG, IATA	III
- Environmental hazards:	Product contains environmentally hazardous substances: cyclohexane, Turpentine, oil
- Marine pollutant:	Yes
- Special marking (ADR):	Symbol (fish and tree) Symbol (fish and tree)
- Special precautions for user	Warning: Flammable liquids
- Danger code (Kemler):	30
- EMS Number:	F-E,S-E
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
- UN "Model Regulation":	UN1263, Paint, special provision 640E, ENVIRONMENTALLY HAZARDOUS, 3, III

### 15 Regulatory information

- Sara

- Section 355 (extremely hazardous substances):

None of the ingredient is listed.

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**Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

**TSCA (Toxic Substances Control Act):**

All ingredients are listed.

**Proposition 65**

**Chemicals known to cause cancer:**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**Chemicals known to cause developmental toxicity:**

149-57-5 2-ethylhexanoic acid

**Carcinogenicity categories**

**EPA (Environmental Protection Agency)**

110-82-7 cyclohexane 1

**TLV (Threshold Limit Value established by ACGIH)**

108-94-1 cyclohexanone A3

140-11-4 benzyl acetate A4

76-22-2 bornan-2-one A4

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**



GHS02 GHS05 GHS07 GHS08

**Signal word Danger**

**Hazard-determining components of labeling:**

Turpentine, oil  
titanium tetrabutanolate  
spike oil  
Rosin

**Hazard statements**

H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H361 Suspected of damaging fertility or the unborn child.  
H371 May cause damage to organs.  
H304 May be fatal if swallowed and enters airways.

**Precautionary statements**

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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**P303+P361+P353 IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

**P310** Immediately call a POISON CENTER or doctor/physician.

**P405** Store locked up.

**P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing MSDS:** TFD-MSDS

**Contact:** Mr. Hesse

**Abbreviations and acronyms:**

**ADR:** Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

**IMDG:** International Maritime Code for Dangerous Goods

**DOT:** US Department of Transportation

**IATA:** International Air Transport Association

**ACGIH:** American Conference of Governmental Industrial Hygienists

**ENCS:** European Inventory of Existing Commercial Chemical Substances

**ELINCS:** European List of Notified Chemical Substances

**CAS:** Chemical Abstracts Service (division of the American Chemical Society)

**NFPA:** National Fire Protection Association (USA)

**HMS:** Hazardous Materials Identification System (USA)

**LC50:** Lethal concentration, 50 percent

**LD50:** Lethal dose, 50 percent

(calc.): calculated

**\* Data compared to the previous version altered.**