

1 Identification

- **Product identifier**
- **Trade name:** *LU 9304 LUSTRE YELLOW*
- **Article number:** 88030143
- **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:**

64742-95-6	Solvent naphtha (petroleum), light arom.	10-25%
514-10-3	abietic acid, technical	10-25%
75-09-2	dichlormethane	10-25%
91-17-8	Decahydronaphthalene	5-10%
67874-71-9	Hexanoic acid, 2-ethyl-, bismuth(3+) salt	5-10%
	Metal compound	2.5-5%
8000-41-7	Terpineol	2.5-5%
8006-64-2	Turpentine, oil	2.5-5%
8000-25-7	Rosemary oil	≤ 2.5%
64741-44-2	Distillates (petroleum), straight-run middle	≤ 2.5%
98-54-4	4-tert-butylphenol	≤ 2.5%
68917-18-0	Oils, mint	≤ 2.5%
301-10-0	Hexanoic acid, 2-ethyl-, tin(2+) salt (2:1)	≤ 1.0%
68603-83-8	Fatty acids, C6 - C19-branched, lead salts, basic	≤ 0.5%
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	≤ 0.5%
138-86-3	dipentene	≤ 0.5%

3 Hazard(s) identification

- **Classification of the substance or mixture:**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

(Contd. on page 2)

Trade name: LU 9304 LUSTRE YELLOW

(Contd. of page 1)


GHS08 Health hazard

Carc. 2 *H351 Suspected of causing cancer.*
Repr. 1A *H360 May damage fertility or the unborn child.*
Asp. Tox. 1 *H304 May be fatal if swallowed and enters airways.*


GHS05 Corrosion

Skin Corr. 1B *H314 Causes severe skin burns and eye damage.*


GHS07

Acute Tox. 4 *H332 Harmful if inhaled.*
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:

Decahydronaphthalene
 Solvent naphtha (petroleum), light arom.
 dichlormethane
 Turpentine, oil

Hazard statements

H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.
H304 May be fatal if swallowed and enters airways.

Precautionary statements

P101 *If medical advice is needed, have product container or label at hand.*
P102 *Keep out of reach of children.*
P103 *Read label before use.*
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.*

(Contd. on page 3)

USA

Printing date 01/07/2014

Version number 8

Reviewed on 01/07/2014

Trade name: LU 9304 LUSTRE YELLOW

(Contd. of page 2)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



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



4 First-aid measures

- **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. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective clothing.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
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.
- **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.
- **Information about protection against explosions and fires:** No special measures required.

(Contd. on page 4)

USA

Printing date 01/07/2014

Version number 8

Reviewed on 01/07/2014

Trade name: LU 9304 LUSTRE YELLOW

(Contd. of page 3)

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:** 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:
75-09-2 dichlormethane

PEL () Short-term value: 125 ppm
 Long-term value: 25 ppm
 see 29 CFR 1910.1052

REL () See Pocket Guide App. A

TLV () Long-term value: 174 mg/m³, 50 ppm
 BEI

8006-64-2 Turpentine, oil

PEL () Long-term value: 560 mg/m³, 100 ppm

REL () Long-term value: 560 mg/m³, 100 ppm

TLV () Long-term value: 112 mg/m³, 20 ppm
 (SEN) NTC-DSEN

Ingredients with biological limit values:
75-09-2 dichlormethane

BEI () 0.3 mg/L
 Medium: urine
 Time: end of shift
 Parameter: Dichloromethane (semi-quantitative)

- **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 skin.
- 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.

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.

(Contd. on page 5)

Trade name: LU 9304 LUSTRE YELLOW

(Contd. of page 4)

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:	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: < 61 °C (< 142 °F)
When the highly volatile and flame-retardant component dichloromethane has evaporated, the substance is inflammable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 255 °C (491 °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:	0.7 Vol %
Upper:	22.0 Vol %

Vapor pressure at 20 °C (68 °F): 453 hPa (340 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.

Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

(Contd. on page 6)

Trade name: LU 9304 LUSTRE YELLOW

(Contd. of page 5)

Solvent content:	
Organic solvents:	32.5 %
Water:	0.0 %
Solids content:	
	64.5 %
Other information	
	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:

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

Oral LD50 > 5000 mg/kg (rat)

Dermal LD50 > 3160 mg/kg (rabbit)

Inhalative LC50/4 h > 5.2 mg/l (rat)

75-09-2 dichlormethane

Oral LD50 1600 mg/kg (rat)

Inhalative LC50/4 h 88 mg/l (rat)

91-17-8 Decahydronaphthalene

Oral LD50 4170 mg/kg (rat)

Dermal LD50 5900 mg/kg (rbi)

Inhalative LC50/1h 1.08 mg/l (rat)

8000-41-7 Terpeneol

Oral LD50 4300 mg/kg (rat)

Dermal LD50 > 5000 mg/kg (rabbit)

8006-64-2 Turpentine, oil

Oral LD50 5760 mg/kg (rat)

68917-18-0 Oils, mint

Oral LD50 1240 mg/kg (rat)

Dermal LD50 > 5000 mg/kg (rabbit)

64742-48-9 Naphtha (petroleum), hydrotreated heavy

Oral LD50 > 5000 mg/kg (rat)

Dermal LD50 > 3000 mg/kg (rabbit)

138-86-3 dipentene

Oral LD50 5300 mg/kg (rat) (RTECS)

Dermal LD50 > 2000 mg/kg (kan)

Primary irritant effect:

- on the skin:** Irritant to skin and mucous membranes.
- on the eye:** Strong irritant with the danger of severe eye injury.
- Sensitization:** Sensitization possible through skin contact.

(Contd. on page 7)

Trade name: LU 9304 LUSTRE YELLOW

(Contd. of page 6)

Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer)

75-09-2 dichlormethane	2B
68457-13-6 Cobalt, borate neodecanoate complexes	2B
50-00-0 Methanal	1

NTP (National Toxicology Program)

75-09-2 dichlormethane	R
50-00-0 Methanal	R

12 Ecological information

Aquatic toxicity:

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)

8006-64-2 Turpentine, oil

EC50 14.1 mg/l (daphnia)

68917-18-0 Oils, mint

EC50/48h 78.9 mg/l (daphnia)

64742-82-1 Naphtha (petroleum), hydrodesulfurized heavy

LC50/96h 2.6 mg/l (daphnia)

138-86-3 dipentene

EC50/48h 17 mg/l (daphnia) (ECOTOX Database)

LC50/96h 80 mg/l (fish) (Regenbogenforelle, ECOTOX Database)

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: Disposal must be made according to official regulations.

USA

(Contd. on page 8)

Printing date 01/07/2014


Version number 8

Reviewed on 01/07/2014

Trade name: LU 9304 LUSTRE YELLOW

(Contd. of page 7)

14 Transport information

· UN-Number	UN3470
· DOT, ADR, IMDG, IATA	
· UN proper shipping name	Paint, corrosive, flammable
· DOT	3470 Paint, corrosive, flammable, ENVIRONMENTALLY HAZARDOUS
· ADR	PAINT, CORROSIVE, FLAMMABLE (Solvent naphtha (petroleum), light arom., TURPENTINE), MARINE POLLUTANT
· IMDG	PAINT, CORROSIVE, FLAMMABLE
· IATA	PAINT, CORROSIVE, FLAMMABLE
· Transport hazard class(es)	
· DOT	
	
· Class	8 Corrosive substances.
· Label	8+3
· ADR, IMDG	
	
· Class	8 Corrosive substances
· Label	8+3
· IATA	
	
· Class	8 Corrosive substances.
· Label	8+3
· Packing group	II
· DOT, ADR, IMDG, IATA	
· Environmental hazards:	Product contains environmentally hazardous substances: Fatty acids, C6 - C19-branched, lead salts, basic
· Marine pollutant:	Yes Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Corrosive substances
· Danger code (Kemler):	83
· EMS Number:	F-E,S-C
· Segregation groups	Heavy metals and their salts (including their organometallic compounds)
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

(Contd. on page 9)

USA

Printing date 01/07/2014

Version number 8

Reviewed on 01/07/2014

Trade name: LU 9304 LUSTRE YELLOW

(Contd. of page 8)

· **UN "Model Regulation":** UN3470, Paint, corrosive, flammable, ENVIRONMENTALLY HAZARDOUS, 8 (3), II

15 Regulatory information

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

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

75-09-2 dichlormethane

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

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

75-09-2 dichlormethane

· **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

· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

75-09-2 dichlormethane B2

50-00-0 Methanal B1

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

75-09-2 dichlormethane A3

76-22-2 bornan-2-one A4

50-00-0 Methanal A2

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

75-09-2 dichlormethane

50-00-0 Methanal

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

75-09-2 dichlormethane

50-00-0 Methanal

· **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:**

Decahydronaphthalene

Solvent naphtha (petroleum), light arom.

(Contd. on page 10)

Printing date 01/07/2014

Version number 8

Reviewed on 01/07/2014

Trade name: LU 9304 LUSTRE YELLOW

(Contd. of page 9)

dichlormethane

Turpentine, oil

Hazard statements

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

H304 May be fatal if swallowed and enters airways.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

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.

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

EINECS: 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.