



Safety data sheet

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

Date of printing: 01.01.2023

Identcode: 22

Revision: 01.01.2023

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

- Trade name: OPN-Universal Marking Spray - LUMINOUS COLORS
- Article number: various article numbers

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

- Sector of Use:
 - SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
 - SU21 Consumer uses: Private households / general public / consumers
 - SU22 Professional uses: Public domain (administration, education, entertainment, services)
- Application of the substance / the preparation: color spray

1.3. Details of the supplier of the safety data sheet

- Manufacturer/Supplier: OPN-CHEMIE GmbH
In der Au 14
D-57290 Neunkirchen
info@opn-chemie.de
www.opn-chemie.de
- Further information obtainable from: safety data sheets Barbara Angelika Gros-Petri
Tel. +49 (0) 2735/7725-20 baerbel.petri@opn-chemie.de

1.4. Emergency telephone number:

Emergency information service Poison Information Center Freiburg +49 (0) 761/19240

2. Hazards identification

2.1. Classification of the substance or mixture

- Classification according to Regulation (EC) Nr. 1272/2008

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

Eye Irrit. 2 H319 Causes serious eye irritation..

STOT SE. 3 H336 May cause drowsiness or dizziness.

2.2. Label elements

- Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.



- Hazard pictograms GHS02 GHS07

- Signal word *Danger*

- Hazard-determining components of labelling:

Aceton, n-Butylacetat

- Hazard statements

H222-229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH018 In use may form flammable/explosive vapour-air mixture.

- Precautionary statements

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

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P260 Do not breathe spray.

P262 Do not get in eyes, on skin, or on clothing.

P271 Use only outdoors or in a well-ventilated area.

P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

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

P312 Call a POISON CENTER/doctor if you feel unwell.

P403 Store in a well-ventilated place.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

P501 Dispose of contents / container in accordance with national regulations of the disposal.

2.3. other hazards










-Results of PBT and vPvB assessment- PBT: Not applicable-**vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterisation:** Mixtures

- **Description:** · Mixture of substances listed below with nonhazardous additions.

- **Dangerous components :**

CAS-No. EINECS-No. INDEX-No.	Description	Symbol	%
109-87-5 203-714-2	Methylal		10-20
01-2119664781-31-xxxx	 <i>Entz. Fl. 2, H225;</i>		
123-86-4 204-658-1	n-butyl acetate		5-15
607-025-00-1	 <i>Flam. Liq. Fl. 3, H226;</i>  <i>STOT SE. 3, H336</i>		
141-78-6 205-500-4	ethyl acetate		5-15
607-022-00-5	 <i>Flam.Liq. 2, H225;</i>  <i>Eye Irrit. 2, H319; STOT SE 3,H336</i>		
74-98-6 200-827-9	propane liquefied		5-15
601-003-00-5	 <i>Flam. Gas 1, H220;</i>  <i>Press.Gas, H280</i>		
106-97-8 203-448-7	butan, pure (<0,1% Butadien)		15-30
601_004_00_0	 <i>Flam. Gas 1, H220;</i>  <i>Press.Gas , H280</i>		

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4.First aid measures

4.1. Description of first aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**

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

No further relevant information available.

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

No further relevant information available.

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5. Fire-fighting measures

- Extinguishing media

- Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- For safety reasons unsuitable extinguishing agents: Water with full jet

- Special hazards arising from the substance or mixture Carbon dioxide (CO₂), carbon monoxide.

- Advice for firefighters

- Protective equipment: Put on breathing apparatus, do not inhale explosion and fire gases.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

6.2. 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.

6.3. Methods and material for containment and cleaning up: Ensure adequate ventilation.

6.4. 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

7.1. Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.

- Information about fire - and explosion protection:

Do not spray onto a naked flame or any incandescent material. Keep ignition sources away - Do not smoke.

7.2. Conditions for safe storage, including any incompatibilities

- Storage:

- Requirements to be met by storerooms and receptacles:

Store in a cool location. TRGS 510. Observe official regulations on storing packagings with pressurized containers.

- Information about storage in one common storage facility: Not required.

- Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles. Protect from heat and direct sunlight.

Recommended storage temperature: 10-30 °C.

- Warehouse class: 2B

7.3. Specific end use(s) No further relevant information available.

8. Exposure controls/personal protection

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

8.1. Control parameters

- Ingredients with limit values that require monitoring at the workplace:

CAS-No.	Name of the substance	%	Type	Value	Unit
109-87-5	Methylal	10-20	MAK	3100	mg/m ³
				1000	ml/m ³
123-86-4	n-butyl acetate	5-15	MWC	300	mg/m ³
				62	ppm
141-78-6	ethyl acetate	5-15	MWC	734	mg/m ³
				200	ppm
74-98-6	propane liquefied	5-15	MWC	1800	mg/m ³
				1000	ppm
106-97-8	butane, pure	15-30	MWC	2400	mg/m ³
				1000	ppm

(*MWC = Maximum Workplace Concentration, WEL (Great Britain Long-term value))

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DNEL's**67-64-1 aceton**

Oraal DNEL 62 mg/kg/bw/day (human)

Dermaal DNEL 62 mg/kg bw/day (human)

Inhalatief DNEL 200 mg/m³ (human)- **Additional information:** The lists valid during the making were used as basis.**8.2. Exposure controls****- Personal protective equipment:****- General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols.

- Respiratory protection:

Not necessary if room is well-ventilated. When used properly and under normal conditions, breathing protection is not required.

- Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- 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.

- 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.

- As protection from splashes gloves made of the following materials are suitable:

Nitrilkaatschuk or Butylkaatschuk

- **Eye protection:** Tightly sealed goggles- **Body protection:** Light weight protective clothing**9. Physical and chemical properties****- Information on basic physical and chemical properties****- General Information****- Appearance:**- **Form:** Aerosol- **Colour:** in accordance with product description- **Odour:** Characteristic- **Odour threshold:** Not determined- **pH-value:** Not applicable for an aerosol**- Change in condition**- **Melting point/Melting range:** Undetermined.- **Boiling point/Boiling range:** Not applicable, as aerosol.- **Flash point:** Not applicable, as aerosol.- **Flammability (solid, gaseous):** Not applicable.- **Ignition temperature:** 490° Celsius- **Decomposition temperature:** Not determined.- **Self-igniting:** Product is not selfigniting.- **Danger of explosion:** Protect from sunlight and temperatures above 50 °C. Development of explosive vapor / air mixtures.- **Explosion limits:** lower: 1,5 volume % upper: 9,5 volume %- **Vapour pressure:** at 20° C 3-4 bar at 50° C 10,4 bar- **Density:** at 20° C 0.95 g/ml lacquer- **Relative density** Not determined. - **Vapour density** Not determined.- **Evaporation rate** Not applicable.- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

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- **Viscosity:** Dynamic: Not determined. Kinematic: Not determined.

- **Solvent content:** VOC (EC) 68% 340 gr per can, 680 gr per l

9.2 other information: No further relevant information available.

10. Stability and reactivity

10.1. Reactivity There is no information.

10.2. Chemical stability

- **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

10.3. Possibility of hazardous reactions No dangerous reactions known.

10.4. Conditions to avoid No further relevant information available.

10.5. Incompatible materials: No further relevant information available

10.6. Hazardous decomposition products: No dangerous decomposition products known.

11. Toxicological information

11.1. Information on toxicological effects

- **Acute toxicity:** Based on the available data, the classification criteria are not met

- **LD/LC50 values relevant for classification:**

109-87-5 Methylal		
Oral	LD50	6950 mg/kg mouse
Dermal	LD50	> 5000 mg/kg (rabbit)
Inhalativ	LC50	15000 mg/l (rat)
141-78-6 Ethylacetat		
Oral	LD50	5620 mg/kg rat
Dermal	LD50	>20000 mg/kg (rabbit)
123-86-4 n-Butylacetat		
Oral	LD50	10760 mg/kg rat
Dermal	LD50	>14112 mg/kg (rabbit)
Inhalativ	LC50/4 h	>21 mg/l (rat)
106-97-8 Butan		
Inhalativ	LC50/4 h	658 mg/l (rat)
74-98-6 Propan		
Inhalativ	LC50/4 h	> 20 mg/l (rat)

- **Primary irritant effect:**

Skin corrosion/irritation Based on the available data for the individual substances, the classification criteria are not met

Serious eye damage/irritation Causes serious eye irritation

Respiratory or skin sensitisation Based on the available data for the individual substances, the classification criteria are not met

Germ cell mutagenicity Based on the available data for the individual substances, the classification criteria are not met

Karcinogenicity Based on the available data for the individual substances, the classification criteria are not met

Reproductive toxicity Based on the available data for the individual substances, the classification criteria are not met

STOT-single exposure May cause drowsiness or dizziness

STOT-repeated exposure Based on the available data for the individual substances, the classification criteria are not met

Aspiration hazard Based on the available data for the individual substances, the classification criteria are not met

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12. Ecological information

12.1. Toxicity

- **Aquatic toxicity** Based on the available data for the individual substances, the classification criteria are not met

109-87-5 Methylal	
EC50/48 h	> 1200 mg/l (daphnia magna)
LC50/96 h	>1000 mg/l (Fisch)
141-78-6 Ethylacetat	
EC50	717 mg/l (Daphnia) (48h), 230 mg/l (Fisch) (96h)
IC50	3300 mg/l (Algen) (48h)

12.2. Persistence and degradability No further relevant information available.

12.3. Bioaccumulative potential No further relevant information available.

12.4. Mobility in soil No further relevant information available.

- Additional ecological information:

- **General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5.-Results of PBT and vPvB assessment- PBT: Not applicable-**vPvB:** Not applicable.

12.6. Endocrine disrupting properties No information available.

12.7. Other adverse effects No further relevant information available.

13. Disposal considerations

13.1. Waste treatment methods

- Recommendation

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

- European waste catalogue

08 01 11	waste paint and varnish containing organic solvents or other dangerous substances
15 01 04	metallic packaging
15 01 11	metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

- Uncleaned packaging:

- Recommendation: Disposal must be made according to official regulations.

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14. Transport information

14.1 UN-Number	
· ADR, IMDG, IATA	UN1950
14.2 UN proper shipping name	
· ADR	1950 AEROSOLS,
· IMDG	AEROSOLS
· IATA	AEROSOLS, flammable
14.3 Transport hazard class(es)	
· ADR	
	
· Class	2 5F Gases.
· Label	2.1
· IMDG, IATA	
	
· Class	2.1
· Label	2.1
14.4 Packing group	
· ADR, IMDG, IATA	Void
14.5. Environmental hazards:	
· Marine pollutant:	No
14.6. Special precautions for user	Warning: Gases.
· Danger code (Kemler):	-
· EMS Number:	F-D,S-U
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Transport category	2
· Tunnel restriction code	D
· UN "Model Regulation":	UN1950, AEROSOLS, 2.1,

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

15.2. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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.

Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H229 Pressurised container: May burst if heated.

H280 Contains gas under pressure; may explode if heated.

H 319 Causes serious eye irritation.

H 336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

-Department issuing MSDS: Laboratory department (Quality assurance)

- Contact: baerbel.petri@opn-chemie.de

-Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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 IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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)

VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)

VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

Flam. Gas 1: Flammable gases, Hazard Category 1 Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas: Gases under pressure: Compressed gas Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3