

### Safety data sheet according to 1907/2006/EC, Article 31

Printing date 14.11.2023

Version number 12 (replaces version 11)

Revision: 14.11.2023

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

· **1.1 Product identifier**

· **Product name:** Verification Standard 660 nm

· **Catalog number:** 215657, 215670(660 nm), 215640(660 nm), 215650(660 nm)

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

· **Application of the substance / the preparation:** Coloured Standard Solution for calibration purposes

· **1.3 Details of the supplier of the safety data sheet**

· **Supplier:**

Tintometer GmbH  
Schleefstraße 8-12  
44287 Dortmund  
Made in Germany  
www.lovibond.com

phone: +49 (0)231 94510-0  
e-mail: sales@lovibond.com

The Tintometer Limited  
Lovibond® House  
Sun Rise Way  
Amesbury  
Wiltshire SP4 7GR  
United Kingdom

phone : +44 1980 664800  
e-mail: SDS@lovibond.uk

· **Informing department:**

e-mail: sds@lovibond.com  
Product Safety Department

· **1.4 Emergency telephone number:**

+44 1235 239670  
Languages: English

#### SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

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

· **Hazard pictograms**



GHS02

· **Signal word** Warning

· **Hazard statements**

H226 Flammable liquid and vapour.

· **Precautionary statements**

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

P280 Wear protective gloves / eye protection.

P233 Keep container tightly closed.

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

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P403+P235 Store in a well-ventilated place. Keep cool.

**2.3 Other hazards**

Vapours have anaesthetic effect.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.

**Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

**Determination of endocrine-disrupting properties**

CAS: 78-93-3 butanone

List II 0.1–1%

**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:** Solvent mixture with additives.**Dangerous components:**

CAS 64-17-5: Eye Irrit. 2, H319 c ≥ 50% (SCL = specific concentration limit, registrant)

Ethanol denatured with MEK (methyl ethyl ketone = 2-butanone)

CAS: 64-17-5 EINECS: 200-578-6 Index No: 603-002-00-5 Reg.nr.: 01-2119457610-43-XXXX	ethanol ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319 Specific concentration limit: Eye Irrit. 2; H319: C ≥ 50 %	40–<50%
CAS: 78-93-3 EINECS: 201-159-0 Index No: 606-002-00-3 Reg.nr.: 01-2119457290-43-XXXX	butanone ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	0.1–1%

**Additional information** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures****General information** Instantly remove any clothing soiled by the product.**After inhalation** Supply fresh air; consult doctor in case of symptoms.**After skin contact** Instantly wash with water and soap and rinse thoroughly.**After eye contact**

Rinse opened eye for several minutes under running water (at least 15 min). If symptoms persist, consult doctor.

**After swallowing**

Rinse out mouth and then drink 1-2 glasses of water.

Seek medical treatment.

**4.2 Most important symptoms and effects, both acute and delayed:**

irritations

after inhalation:

drowsiness

dizziness

coughing

breathing difficulty

after swallowing:

sickness

vomiting

absorption

CNS disorders

**4.3 Indication of any immediate medical attention and special treatment needed:** No further relevant information available.**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents**CO<sub>2</sub>, extinguishing powder or water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

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- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
  - **5.2 Special hazards arising from the substance or mixture**
    - Can form explosive gas-air mixtures.
    - combustible
    - Formation of toxic gases is possible during heating or in case of fire.
    - Carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>)
  - **5.3 Advice for firefighters**
  - **Protective equipment:**
    - Wear self-contained breathing apparatus.
    - Wear full protective suit.
  - **Additional information**
    - Collect contaminated fire fighting water separately. It must not enter drains.
    - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
    - Ambient fire may liberate hazardous vapours.
- 

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
  - **Advice for non-emergency personnel:**
    - Wear protective equipment. Keep unprotected persons away.
    - Ensure adequate ventilation
  - **Advice for emergency responders:** Protective equipment: see section 8
  - **6.2 Environmental precautions:**
    - Do not allow product to reach sewage system or water bodies.
    - Prevent material from reaching sewage system, holes and cellars.
    - Damp down gases/fumes/haze with water spray jet.
  - **6.3 Methods and material for containment and cleaning up:**
    - Ensure adequate ventilation.
    - Absorb with liquid-binding material (sand, diatomite, universal binders).
    - Dispose of contaminated material as waste according to item 13.
  - **6.4 Reference to other sections**
    - See Section 8 for information on personal protection equipment.
    - See Section 13 for information on disposal.
- 

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
- **Advice on safe handling:**
  - Use only in well ventilated areas.
  - Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
  - Protect from heat.
  - Keep ignition sources away - Do not smoke.
  - Take action to prevent static discharges.
- **Hygiene measures:**
  - Do not inhale gases / fumes / aerosols.
  - Take off immediately all contaminated clothing.
  - Wash hands during breaks and at the end of the work.
  - Do not eat, drink or smoke when using this product.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and containers:** Store only in unopened original containers.
- **Information about storage in one common storage facility:**
  - Store away from oxidising agents.
  - see chapter 10
- **Further information about storage conditions:**
  - Protect from frost.
  - Protect from heat and direct sunlight.
  - Store in the dark.
  - Protect from the effects of light.
  - Protect from humidity and keep away from water.
- **Recommended storage temperature:** 20°C +/- 5°C

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

### SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

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

**CAS: 64-17-5 ethanol**

WEL (Great Britain)	Long-term value: 1920 mg/m <sup>3</sup> , 1000 ppm
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**CAS: 78-93-3 butanone**

WEL (Great Britain)	Short-term value: 899 mg/m <sup>3</sup> , 300 ppm Long-term value: 600 mg/m <sup>3</sup> , 200 ppm Sk, BMGV
IOELV (European Union)	Short-term value: 900 mg/m <sup>3</sup> , 300 ppm Long-term value: 600 mg/m <sup>3</sup> , 200 ppm

· **Regulatory information**

WEL (Great Britain): EH40/2020

IOELV (European Union): (EU) 2019/1831

· **DNELs**

Derived No Effect Level (DNEL)

**CAS: 64-17-5 ethanol**

Oral	DNEL	87 mg/kg (Consumer / long-term / systemic effects)
Dermal	DNEL	343 mg/kg (Worker / long-term /systemic effects) 206 mg/kg (Consumer / long-term / systemic effects)
Inhalative	DNEL	1900 mg/m <sup>3</sup> (Worker / acute / local effects) 950 mg/m <sup>3</sup> (Worker / long-term /systemic effects) 950 mg/m <sup>3</sup> (Consumer / acute / local effects) 114 mg/m <sup>3</sup> (Consumer / long-term / systemic effects)

**CAS: 78-93-3 butanone**

Oral	DNEL	31 mg/kg (Consumer / long-term / systemic effects)
Dermal	DNEL	1161 mg/kg (Worker / long-term /systemic effects) 412 mg/kg (Consumer / long-term / systemic effects)
Inhalative	DNEL	600 mg/m <sup>3</sup> (Worker / long-term /systemic effects) 106 mg/m <sup>3</sup> (Consumer / long-term / systemic effects)

· **Recommended monitoring procedures:**

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

· **PNECs**

Predicted No Effect Concentration (PNEC)

**CAS: 64-17-5 ethanol**

PNEC	580 mg/l (Sewage treatment plant) 0.79 mg/l (Marine water) 2.75 mg/l (Aquatic intermittent release) 0.96 mg/l (Fresh water)
PNEC	0.63 mg/kg (Soil) 3.6 mg/kg (Fresh water sediment)

**CAS: 78-93-3 butanone**

PNEC	55.8 mg/l (Fresh water)
PNEC	22.5 mg/kg (Soil) 287.7 mg/kg (Marine sediment) 55.8 mg/kg (Marine water) 284.74 mg/kg (Fresh water sediment)

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<b>Ingredients with biological limit values:</b>	
<b>CAS: 78-93-3 butanone</b>	
BMGV (Great Britain)	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one

- **Regulatory information** BMGV (Great Britain): EH40/2011
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **Engineering measures:**  
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.
- **Individual protection measures, such as personal protective equipment**  
Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.
- **Eye/face protection** Wear safety glasses in case of breakage / leakage.
- **Hand protection**  
Avoid direct contact with the product/ the mixture by corresponding measures.  
Wear gloves in case of breakage / leakage.  
After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**  
Butyl rubber, BR  
Recommended thickness of the material:  $\geq 0.35$  mm
- **Penetration time of glove material**  
The exact break trough 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:**  
nitrile rubber, NBR  
Recommended thickness of the material:  $\geq 0.11$  mm  
Value for the permeation: Level = 1 (< 10 min )  
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Other skin protection (body protection):** Protective work clothing.
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter A
- **Environmental exposure controls**  
Do not allow product to reach sewage system or water bodies.  
Risk of explosion.

## SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **Physical state** Fluid
- **Form:** Solution
- **Colour:** Light green
- **Odour:** Like alcohol
- **Odour threshold:** CAS 64-17-5: 0.1 - 5058.5 ppm
- **Melting point/Freezing point:** Not determined.
- **Boiling point or initial boiling point and boiling range** 78°C (CAS: 64-17-5 ethanol)
- **Flammability** Flammable liquid and vapour.
- **Explosive properties:** Product is not explosive. However, formation of explosive air/steam mixtures is possible.
- **Lower and upper explosion limit**
  - Lower:** 3.1 Vol % (CAS: 64-17-5 ethanol)
  - Upper:** 27.7 Vol % (CAS: 64-17-5 ethanol)
- **Flash point:** 24°C (DIN EN ISO 13736)
- **Auto-ignition temperature:** 425°C (CAS: 64-17-5 ethanol)
- **Decomposition temperature:** Not determined.
- **pH at 20°C** 7.7
- **Kinematic viscosity** Not determined.

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· <b>Solubility</b>	
· <b>Water:</b>	Fully miscible
· <b>Partition coefficient n-octanol/water (log value)</b>	Not applicable (mixture).
· <b>Vapour pressure at 20°C:</b>	59 hPa (CAS: 64-17-5 ethanol)
· <b>Density and/or relative density</b>	
· <b>Density at 20°C:</b>	0.92 g/cm <sup>3</sup>
· <b>Relative density:</b>	Not determined.
· <b>Relative gas density</b>	Not determined.
· <b>Particle characteristics</b>	Not applicable (liquid).
· <b>9.2 Other information</b>	
· <b>Information with regard to physical hazard classes</b>	
· <b>Corrosive to metals</b>	Void
· <b>Other safety characteristics</b>	
· <b>Oxidising properties:</b>	none
· <b>Additional information</b>	
· <b>Solids content:</b>	<0.1 %
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	40-50 %
· <b>Water:</b>	50-60 %

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** Fumes can combine with air to form an explosive mixture.
- **10.2 Chemical stability** Stable at ambient temperature (room temperature).
- **10.3 Possibility of hazardous reactions**
  - Reacts with alkaline metals
  - Reacts with reducing agents
  - Reacts with peroxides
  - Reacts with acids
  - Nitric acid
  - Reacts with strong oxidizing agents
  - Reacts with alkaline earth metals
  - > Explosive
  - > exothermic reaction
- **10.4 Conditions to avoid** Heating.
- **10.5 Incompatible materials:**
  - rubber
  - various plastics
- **10.6 Hazardous decomposition products:**
  - Inflammable gases/vapours
  - In case of fire: see section 5.

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

<b>CAS: 64-17-5 ethanol</b>		
Oral	LD50	10470 mg/kg (rat) OECD 401
Dermal	LD50	>20000 mg/kg (rabbit)
<b>CAS: 78-93-3 butanone</b>		
Oral	LD50	3400 mg/kg (rat) (OECD 401)
Dermal	LD50	>8000 mg/kg (rabbit)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.

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<b>Information on components:</b>		
<b>CAS: 64-17-5 ethanol</b>		
Irritation of skin	OECD 404	(rabbit: no irritation) (ECHA, registrant)
Irritation of eyes	OECD 405	(rabbit: irritation)
<b>CAS: 78-93-3 butanone</b>		
Irritation of skin	OECD 404	(rabbit: slight irritation) (IUCLID)
Irritation of eyes	OECD 405	(rabbit: severe irritations)

· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

<b>Information on components:</b>		
<b>CAS: 64-17-5 ethanol</b>		
Sensitisation	OECD 406	(guinea pig: negative) (read across CAS 67-56-1)
<b>CAS: 78-93-3 butanone</b>		
Sensitisation	OECD 406	(guinea pig: negative) (IUCLID)

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

<b>Information on components:</b>		
<b>CAS: 64-17-5 ethanol</b>		
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test) (Salmonella typhimurium)	
<b>CAS: 78-93-3 butanone</b>		
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test) (IUCLID)	

· **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.

· **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.

· **Aspiration hazard** Based on available data, the classification criteria are not met.

### Information on likely routes of exposure

Under occupational conditions, the main uptake route for ethanol is through the respiratory tract. [GESTIS]

The main intake pathways for butanone (MEK) are via the respiratory tract and the skin. [GESTIS]

### Additional toxicological information:

Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

CAS 78-93-3 is skin-resorbing.

<b>CAS: 64-17-5 ethanol</b>		
<p>(source: GESTIS) Main toxic effects: Acute: Irritant effect on the eyes (liquid ethanol); disorders of well-being; due to high doses disturbance of the central nervous system. In case of acute inhalative exposure, ethanol has a low toxicity. The odor becomes noticeable in the range of 80 ppm, the threshold for eye irritation is much higher (&gt;10000 ppm). High exposures can cause coughing and tears.  chronic: degreasing of the skin (liquid ethanol); ingestion of high doses causes damage to various organ systems, especially the liver.</p>		
<b>CAS: 78-93-3 butanone</b>		
<p>(source: GESTIS) Main toxic effects: Acute: Irritant effect on the eyes and respiratory tract, disturbance of the central nervous system (narcotic effect) chronic: skin damage</p>		

### 11.2 Information on other hazards

<b>Endocrine disrupting properties</b>		
CAS: 78-93-3	butanone	List II 0.1–1%

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**Other information**

According to the information available to us, the chemical, physical and toxicological properties of the substances mentioned in Chapter 3 have not been thoroughly investigated.

### SECTION 12: Ecological information

**12.1 Toxicity**
**Aquatic toxicity:**
**CAS: 64-17-5 ethanol**

LC50	8140 mg/l/48h (gold orfe) (IUCLID)
EC50	9268–14221 mg/l/48h (Daphnia magna) (IUCLID)
NOEC	9.6 mg/l (Daphnia magna) (9d) (ECHA)

**CAS: 78-93-3 butanone**

EC50	5091 mg/l/48h (Daphnia magna) (IUCLID)
LC50	3220 mg/l/96h (fathhead minnow) (IUCLID)

**Bacterial toxicity:**
**CAS: 64-17-5 ethanol**

EC5	6500 mg/l (Pseudomonas putida) (16h)
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**CAS: 78-93-3 butanone**

EC5	1150 mg/l (Pseudomonas putida) (16h) (IUCLID)
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**12.2 Persistence and degradability**
**CAS: 64-17-5 ethanol**

OECD 301 E	94 % (readily biodegradable) (Modified OECD Screening Test)
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**12.3 Bioaccumulative potential**

Pow = n-octanol/wasser partition coefficient  
log Pow < 1 = Does not accumulate in organisms.

**CAS: 64-17-5 ethanol**

log Pow	-0.32 (.)
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**CAS: 78-93-3 butanone**

log Pow	0.29 (.) (experimental)
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**12.4 Mobility in soil** No further relevant information available.

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

**12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.

**12.7 Other adverse effects** Avoid transfer into the environment.

**Water hazard:**

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.

### SECTION 13: Disposal considerations

**13.1 Waste treatment methods**
**Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Hand over to disposers of hazardous waste.

**European waste catalogue**

14 06 03*	other solvents and solvent mixtures
16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### SECTION 14: Transport information

<ul style="list-style-type: none"> <li>· <b>14.1 UN number or ID number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	UN1170
<ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	1170 ETHANOL (ETHYL ALCOHOL) solution ETHANOL (ETHYL ALCOHOL) solution ETHANOL solution
<ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR</b></li> </ul>	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>
<ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	III
<ul style="list-style-type: none"> <li>· <b>14.5 Environmental hazards:</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> <li>· <b>Kemler Number:</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Category</b></li> </ul>	Warning: Flammable liquids. 30 F-E,S-D A
<ul style="list-style-type: none"> <li>· <b>14.7 Maritime transport in bulk according to IMO instruments</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>	<hr style="border-top: 1px dashed #000;"/> <ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>
<ul style="list-style-type: none"> <li>· <b>Transport category</b></li> <li>· <b>Tunnel restriction code</b></li> </ul>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 D/E
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

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### SECTION 15: Regulatory information

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

· **Poisons Act UK**

· **Regulated explosives precursors**

None of the ingredients is listed.

· **Regulated poisons**

None of the ingredients is listed.

· **Reportable explosives precursors**

None of the ingredients is listed.

· **Reportable poisons**

None of the ingredients is listed.

· **Regulation (EU) 2019/1148 on the marketing and use of explosives precursors** not regulated

· **Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC)**

None of the ingredients is listed.

· **Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology:**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

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· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

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· **Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)**

None of the ingredients is listed.

· **LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)**

None of the ingredients is listed.

· **Substances of very high concern (SVHC) according to REACH, Article 57**

This product does not contain any substances of very high concern above the legal concentration limit of  $\geq 0.1\%$  (w / w).

· **Substances of very high concern (SVHC) according to UK REACH**

This product does not contain any substances of very high concern above the legal concentration limit of  $\geq 0.1\%$  (w / w).

· **Directive 2012/18/EU (SEVESO III):**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category** P5c FLAMMABLE LIQUIDS

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5000 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50000 t

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **Information about limitation of use:** Not required.

· **National regulations**

· **VOC-value EC:** 829.8 g/l

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

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· **Training hints** Provide adequate information, instruction and training for operators.

· **Relevant phrases**

H225 Highly flammable liquid and vapour.

(Contd. on page 11)

GB

# Safety data sheet

## according to 1907/2006/EC, Article 31

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**Product name: Verification Standard 660 nm**


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H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.  
 EUH066 Repeated exposure may cause skin dryness or cracking.

· **Abbreviations and acronyms:**

OECD: Organisation for Economic Co-operation and Development  
 STOT: specific target organ toxicity  
 SE: single exposure  
 RE: repeated exposure  
 EC50: half maximal effective concentration  
 IC50: half maximal inhibitory concentration  
 NOEL or NOEC: No Observed Effect Level or Concentration  
 c.c.: closed cup  
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised 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)  
 DNEL: Derived No-Effect Level (UK REACH)  
 PNEC: Predicted No-Effect Concentration (UK REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 SVHC: Substances of Very High Concern  
 vPvB: very Persistent and very Bioaccumulative  
 Flam. Liq. 2: Flammable liquids – Category 2  
 Flam. Liq. 3: Flammable liquids – Category 3  
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· **Sources**

Data arise from safety data sheets, reference works and literature.  
 ECHA: European CHemicals Agency <http://echa.europa.eu>  
 IUCLID (International Uniform Chemical Information Database)  
 GESTIS- Stoffdatenbank (Substance Database, Germany)

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