



UNELKO NV  
9750 Zingem

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

### 1.1 Product identifier

**INVISIBLE SHIELD® Protective Coating - RTU (Ready-to-use)**

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

#### 1.2.1 Relevant uses

Coating agent

#### 1.2.2 Uses advised against

None known.

### 1.3 Details of the supplier of the safety data sheet

**Company** UNELKO NV  
Leenstraat 22  
9750 Zingem / BELGIUM  
Phone +32 (0)9 384 68 21  
Fax +32 (0)9 384 68 33  
Homepage [www.Unelko.com](http://www.Unelko.com)  
E-mail [info@unelko.be](mailto:info@unelko.be)

#### Address enquiries to

**Technical information** [info@unelko.be](mailto:info@unelko.be)

**Safety Data Sheet** [info@unelko.be](mailto:info@unelko.be)

### 1.4 Emergency telephone number

**Company** +32 (0)70 245 245 (24h)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Flam. Liq. 2: H225 Highly flammable liquid and vapour.

### 2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

#### Hazard pictograms



#### Signal word

DANGER

#### Hazard statements

H225 Highly flammable liquid and vapour.

#### Precautionary statements

P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container in accordance with local/national regulation.

### 2.3 Other hazards

#### Physico-chemical hazards

Vapours may form explosive mixture with air.

#### Other hazards

Further hazards were not determined with the current level of knowledge.



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### SECTION 3: Composition / Information on ingredients

#### Product-type:

The product is a mixture.

Range [%]	Substance
ca. 92	Ethanol
	CAS: 64-17-5, EINECS/ELINCS: 200-578-6, EU-INDEX: 603-002-00-5
	GHS/CLP: Flam. Liq. 2: H225
1 - 8	Dimethylpolysiloxanes
	CAS: 94363-18-5, EINECS/ELINCS: 256-344-9

#### Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.  
For full text of H-statements: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

Take off contaminated clothing and wash before reuse.

##### Inhalation

Ensure supply of fresh air.  
Remove the victim into fresh air and keep him calm.  
In the event of symptoms seek medical treatment.

##### Skin contact

When in contact with the skin, clean with soap and water.  
Consult a doctor if skin irritation persists.

##### 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.

##### Ingestion

Do not induce vomiting.  
Rinse mouth.  
Seek medical advice.

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

Cough  
Redness  
Nausea, vomiting.

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

Treat symptomatically.  
Forward this sheet to the doctor.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

foam, dry powder, water spray jet, carbon dioxide  
Alcohol-resistant foam.

##### Extinguishing media that must not be used

Full water jet

#### 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.  
Carbon monoxide (CO)  
Carbon dioxide (CO<sub>2</sub>)  
Metal oxides.

#### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Cool containers at risk with water spray jet.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.



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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.  
Ensure adequate ventilation.  
Wear suitable protective equipment. For personal protection see SECTION 8.

### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

### 6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, universal absorbent, diatomaceous earth).  
Dispose of absorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Use only in well-ventilated areas.  
Provide good room ventilation even at ground level (vapours are heavier than air).  
Avoid contact with eyes and skin. Use personal protective equipment.  
Keep out of reach of children and domestic animals.  
  
Keep away from open flames, hot surfaces and sources of ignition.  
Ignitable mixtures can be formed in the empty container.  
Use explosion-proofed equipment/fittings and non-sparking tools.  
Ground/bond container and receiving equipment.  
  
Wash face and/or hands before break and end of work.  
Use barrier skin cream.  
Take off contaminated clothing and wash before reuse.  
Do not eat, drink or smoke when using this product.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.  
Provide solvent-resistant and impermeable floor.  
  
Do not store together with oxidizing agents.  
Do not store together with acids and alkalis.  
Do not store together with food and animal food/diet.  
  
Keep container tightly closed.  
Keep container in a well-ventilated place.  
Protect from heat/overheating and from sun.  
Keep in a cool place. Store in a dry place.  
Store in a dark place.

### 7.3 Specific end use(s)

See product use, SECTION 1.2

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters



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## 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
<b>Eye protection</b>	If there is a risk of splashing: safety glasses (EN 166:2001)
<b>Hand protection</b>	Not required under normal conditions. > 0,11 mm, butyl rubber, > 120 min (EN 374) The details concerned are recommendations. Please contact the glove supplier for further information.
<b>Skin protection</b>	Solvent-resistant protective clothing.
<b>Other</b>	Avoid contact with eyes and skin. Do not inhale vapours. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
<b>Respiratory protection</b>	Not required under normal conditions. If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387)
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	Comply with applicable environmental regulations limiting discharge to air, water and soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	liquid
<b>Color</b>	clear
<b>Odor</b>	alcoholic
<b>Odour threshold</b>	No information available.
<b>pH-value</b>	No information available.
<b>pH-value [1%]</b>	3
<b>Boiling point [°C]</b>	78
<b>Flash point [°C]</b>	10
<b>Flammability (solid, gas) [°C]</b>	not applicable
<b>Lower explosion limit</b>	No information available.
<b>Upper explosion limit</b>	No information available.
<b>Oxidising properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	4,4 (room temperature)
<b>Density [g/ml]</b>	0,792 (20 °C / 68,0 °F)
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	100 g/l
<b>Partition coefficient [n-octanol/water]</b>	No information available.
<b>Viscosity</b>	not applicable
<b>Relative vapour density determined in air</b>	> 1
<b>Evaporation speed</b>	No information available.
<b>Melting point [°C]</b>	No information available.
<b>Autoignition temperature [°C]</b>	No information available.
<b>Decomposition temperature [°C]</b>	No information available.

### 9.2 Other information

none



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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Evolution of flammable mixtures possible in air when heated above flash point and/or during spraying or misting.

### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).  
Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Reactions with alkalis (lyes).  
Reactions with oxidizing agents.  
Reactions with acids.

### 10.4 Conditions to avoid

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

### 10.5 Incompatible materials

See SECTION 10.3.

### 10.6 Hazardous decomposition products

No dangerous reactions known if used as directed.  
In the event of fire: See SECTION 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product
ATE-mix, oral, > 5000 mg/kg.
Substance
Ethanol, CAS: 64-17-5
LD50, dermal, Rabbit: 7430 mg/kg.
LD50, oral, Rabbit: 7060 mg/kg.
LC50, inhalative, Rat: 37620 mg/m <sup>3</sup> /10h.

<b>Serious eye damage/irritation</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Skin corrosion/irritation</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Respiratory or skin sensitisation</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Specific target organ toxicity — single exposure</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Specific target organ toxicity — repeated exposure</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Mutagenicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Reproduction toxicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Carcinogenicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Aspiration hazard</b>	Based on the available information, the classification criteria are not fulfilled.
<b>General remarks</b>	

Toxicological data of complete product are not available.



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## SECTION 12: Ecological information

### 12.1 Toxicity

### 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	No information available.
<b>Behaviour in sewage plant</b>	No information available.
<b>Biological degradability</b>	94% (CAS 64-17-5)(Lit.)

### 12.3 Bioaccumulative potential

log Pow: -0,32 (CAS 64-17-5) - Accumulation in organisms is not expected.

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

No information available.

### 12.6 Other adverse effects

Ecological data of complete product are not available.  
Do not discharge product unmonitored into the environment or into the drainage.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

Coordinate disposal with the authorities if necessary.

<b>Waste no. (recommended)</b>	070704* 160305* 200113*
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#### Contaminated packaging

Uncontaminated packaging may be taken for recycling.  
Packaging that cannot be cleaned should be disposed of as for product.

<b>Waste no. (recommended)</b>	150110*
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## SECTION 14: Transport information

### 14.1 UN number

**Transport by land according to ADR/RID** 1170

**Inland navigation (ADN)** 1170

**Marine transport in accordance with IMDG** 1170

**Air transport in accordance with IATA** 1170




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#### 14.2 UN proper shipping name

Transport by land according to ADR/RID Ethanol solution  
- Classification Code F1  
- Label   
- ADR LQ 1 I  
- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 2 (D/E)

Inland navigation (ADN) Ethanol solution  
- Classification Code F1  
- Label 

Marine transport in accordance with IMDG Ethanol solution  
- EMS F-E, S-D  
- Label   
- IMDG LQ 1 I

Air transport in accordance with IATA Ethanol solution  
- Label 

#### 14.3 Transport hazard class(es)

Transport by land according to ADR/RID 3

Inland navigation (ADN) 3

Marine transport in accordance with IMDG 3

Air transport in accordance with IATA 3

#### 14.4 Packing group

Transport by land according to ADR/RID II

Inland navigation (ADN) II

Marine transport in accordance with IMDG II

Air transport in accordance with IATA II



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#### 14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available.

### SECTION 15: Regulatory information

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

**EEC-REGULATIONS** 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

**TRANSPORT-REGULATIONS** DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2017).

**VOC (2010/75/CE):** ca. 92 %

**SEVESO III ( Directive 2012/18/EU)** SEVESO III ( Directive 2012/18/EU), Hazard categories in accordance with Regulation (EC) No 1272/2008:  
P5c FLAMMABLE LIQUIDS  
Qualifying quantity (tonnes), Column 2: 5 000  
Qualifying quantity (tonnes), Column 2: 50 000

- Observe employment restrictions for people Observe employment restrictions for young people.

#### 15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### 16.1 Hazard statements (SECTION 03)

H225 Highly flammable liquid and vapour.





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## 16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
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 Concentration  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
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 Other information

**Classification procedure**

Flam. Liq. 2: H225 Highly flammable liquid and vapour. (On basis of test data)

**Modified position**

none



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