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	<b>Revision Nr: 0</b>
	<b>Date: 15/08/2011</b>
<b>Solcide SL 106</b>	<b>Supersedes: 0/0/00</b>

## **1. Identification of the Substance/Preparation and of the Company Undertaking**

Product Name: Solcide SL 106

Product Code

### Use/Description of Product

Biocidal product for industrial and/or commercial use.

### Company Name

Solstar Europe Limited  
14 Egerton  
High Legh, Knutsford  
Cheshire, WA16 6PT

Office No : + 44 (0) 1925 753879  
Mobile No : + 44 (0) 7809370170

### Competent Person responsible for Safety Data Sheet

Richard Hirst, E-Mail: [rjh@solstareurope.com](mailto:rjh@solstareurope.com)

## **2. Hazard Identification**

### Hazard Designation:



C – Corrosive    N – Dangerous for the environment

### Information pertaining to particular dangers for man and environment

R20/22    Harmful by inhalation and if swallowed.  
R34       Causes burns.  
R37       Irritating to respiratory system.  
R42/43   May cause sensitization by inhalation and skin contact.  
R50       Very toxic to aquatic organisms.



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#### Safety Phrases

26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
36/37/39	wear suitable protective clothing, gloves and eye/face protection.
45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
60	This material and its container must be disposed of as hazardous waste.
61	Avoid release to the environment. Refer to special instructions/safety data sheets

#### Other Hazards:

#### Results of PBT and vPvB assessment:

Not applicable

#### PBT:

This mixture does not contain substances that meet the PBT criteria of REACH, annex XIII.

#### vPvB:

This mixture does not contain substances that meet the vPvB criteria of REACH, annex XIII.

#### Classification system








The classification of health and environmental hazards is based on test results or on the conventional calculation method according to Articles 6 & 7 of directive 1999/45/EC (DPD).

### **3. Compositional Information on Ingredients**

#### Chemical Characterisation

#### Description:

Micro biocide based on twin chain quaternary ammonium compound.

Dangerous Components		
CAS: 7173-51-5 EINECS: 230-525-2 Index number: 612-131-00-6	di-n-decyl dimethylammonium chloride  <b>C</b> ,  <b>Xn</b> ,  <b>N</b> ; R 22-34-50	10 - 25%
CAS: 111-30-8 EINECS: 203-856-5 Index number: 605-022-00-X	glutaral  <b>T</b> ,  <b>C</b> ,  <b>Xn</b> ,  <b>N</b> ; R23/25-34-42/43-50	2.5- 10%

#### Additional Information:

For the wording of the listed risk phrases refer to section 16.

### **4. First Aid Measures**

#### General Information

Personal Protection for the first aider.

#### After Inhalation

Remove from exposure. If symptoms of irritation or sensitization occur (shortness of breath, wheezing or labored coughing), call a doctor.



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#### After Skin Contact

Take off contaminated clothing immediately  
Wash immediately with plenty of water and soap and rinse thoroughly.  
Destroy or thoroughly clean contaminated shoes.  
Call a doctor immediately.  
In case of extensive skin contact immediately use safety shower.

#### After Eye Contact

Rinse opened eye for at least 15 minutes under running water and apply a sterile protective bandage. Get medical attention.

#### After Swallowing

Rinse mouth and drink plenty of water.  
Do not induce vomiting. Call for medical help.  
Bring vomiting person into recovery position.  
Do not give anything by mouth to an unconscious person.

#### Information for the Doctor

Most important symptoms and effects, both acute and delayed.

Allergic skin reaction.  
Corrosive damage to gastro-intestinal tract.

#### Danger

If swallowed or in case of vomiting, hazard of entering the lungs (aspiration).  
Danger of gastric perforation.

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

Rinse eyes thoroughly with physiological saline.  
If swallowed, gastric irrigation with activated Carbon.

## **5. Fire Fighting Measures**

#### Suitable extinguishing agents:

Water spray jet, extinguishing powder, CO<sub>2</sub>, foam.

#### Unsuitable extinguishing agents for reasons of safety:

None

#### Special hazards caused by the material, its products of combustion or flue gasses:

In case of fire, toxic incineration products may be released such as:  
Nitrogen Oxides (NO<sub>x</sub>)  
Carbon Monoxide (CO)  
Hydrogen Chloride (HCl)

#### Protective equipment

Wear self contained breathing apparatus.

#### Additional Information:



Collect contaminated fire fighting water separately. It must not enter drains.

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## **6. Accidental Release Measures**

### Personal safety precautions:

Wear protective clothing (See item 8).

Keep unprotected persons away.

When selecting the protective suit attention has to be paid to the complete and safe protection of skin and mucous membranes. Impermeable protective clothes, protective boots made of neoprene, complete face protection and nitrile-rubber-gloves with long tops should be worn.

### Environmental precautions

As the product is hazardous for aquatic environment, it must be prevented from reaching surface water.

### Measures for cleaning/collecting:

Collect large amounts in suitable container. Cover the rest with absorbent, mix intensively and collect mechanically.

Suitable binder: Multipurpose absorbent.

Dispose of contaminated material as waste according to item 13.

Provide adequate ventilation.

## **7. Handling and Storage**

### Precautions for safe handling:

Ensure good exhaust ventilation at the workplace.

It is preferable to handle the product in a closed system.

Prevent contamination of the inhaled air by heating up the product or forming aerosols.

Load carefully, avoid splashes.

Compliance with the minimum requirements designed to guarantee a better standard of safety and health at work is essential to ensure the safety and health of workers.

### Information about protection against explosion and fire:

No special measures required.

### Storage

#### Requirements to be met by storerooms and containers:

Store only in unopened original containers.

#### Information about storage in a common storage facility:

Store away from foodstuffs.

### Further information about storage conditions:

Keep containers tightly sealed

Prevent release to the environment by adequate secondary containment design and use of appropriate spill control procedures.

### Specific end use(s)



No further relevant information available

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## **8. Exposure controls and personal protection:**

Additional information about design of technical systems:

No further data see item 7.

Components with critical values that require monitoring at the workplace:

<b>111-30-8 glutaral</b>	
WEL (Great Britain)	Short-term value: 0.2 mg/m <sup>3</sup> , 0.05 ppm Long-term value: 0.2 mg/m <sup>3</sup> , 0.05 ppm Sen

### Personal protective equipment

#### General protective and hygienic measures:

Use skin cream for skin protection.

Avoid contact with the eyes and the skin.

Do not inhale gases/ fumes/ aerosols.

Wash hands during work breaks and at the end of the shift.

Provide skin protection plan.

#### Respiratory protection:

Use respiratory protection if the OEL is exceeded.

#### Protection of hands:



Chemical protective gloves according to DIN EN 374 with CE-labeling.

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:

Nitrile rubber, NBR

#### Penetration time of glove material:

Penetration time depends on different criteria and may be determined by the manufacturer according to the standard DIN EN 374-3.

#### Gloves made of the following materials are not suitable:

Gloves for mechanical protection do not provide protection against chemicals.

### Eye Protection



Face Shield



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Body protection:

Protective clothing

Apron

Full head, face and neck protection

Risk management measures:

The operators shall be instructed adequately.

The workplace shall be inspected regularly by competent personnel. E.g. the safety representative.

## **9 Physical and chemical properties:**

### General Information

<u>Form:</u>	Liquid
<u>Colour:</u>	Colourless to slightly yellow
<u>Odour:</u>	Mild
<u>Odour threshold:</u>	Not determined

<u>pH-value at 20°C</u>	3 - 4
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### Change in condition

<u>Melting Point / Melting range:</u>	Not applicable
<u>Boiling Point / Boiling range:</u>	ca. 100°C

<u>Flash point:</u>	Not applicable
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### Ignition Temperature:

<u>Decomposition Temperature:</u>	Not determined
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<u>Self Inflammability:</u>	Product is not self igniting.
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<u>Danger of explosion:</u>	Product is not explosive.
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### Critical values for explosion:

<u>Lower:</u>	Not determined
<u>Upper:</u>	Not determined

<u>Vapour pressure at 20°C:</u>	23 hPa
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<u>Density at 20°C:</u>	1.10-1.20 g/cm <sup>3</sup>
<u>Relative density</u>	Not determined
<u>Vapour density:</u>	Not determined
<u>Evaporation rate:</u>	Not determined

### Solubility in / Miscibility

<u>With Water:</u>	Fully miscible
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Partition coefficient (n-octanol/water) Not determined

Viscosity:

Dynamic: Not determined

Kinematic: Not determined

Other Information: No oxidizing properties.

## **10 Stability and reactivity**

Conditions to be avoided:

Before handling, the product should not be diluted or mixed with other chemicals, in order to avoid any negative influences on the active ingredient(s).

Minimum shelf life: 12 months from production date.

Possibility of hazardous reactions:

No dangerous reactions known.

Conditions to avoid:

No further relevant information.

Incompatible materials:

No further relevant information available.

Hazardous decomposition products:

None, if storage and handling is done according to specification.

## **11 Toxicological information**

Acute toxicity:

LD/LC50 values that are relevant for classification		
Oral	ATE mix	1400 mg/Kg (rat)
Dermal	ATE mix	>5000 mg/Kg (rat)

Primary irritant effect:

On the skin: Caustic effect on skin and mucous membranes.

On the eye: Strong caustic effect

Sensitization:

Sensitization possible by inhalation.

Sensitization possible by skin contact.



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## **12 Ecological information:**

<b>Aquatic toxicity:</b>	
<b>111-30-8 glutaral</b>	
EC50 / 48 hrs IC50 72 hrs LC50	15 mg/l (Daphnia) 0.42 mg/l (Scenedesmus subspicatus) 5 mg/l (Leuciscus idus m.)
<b>7173-51-5 di-n-decyl dimethylammonium chloride</b>	
EC50/48hrs EC50/96hrs LC50/96hrs	0.03 mg/l (Daphnia) 0.06 mg/l (Selenastrum capricornutum) 0.5 mg/l (Brachydanio rerio)

### Persistence and degradability

No further relevant information available.

### Degree of elimination:

The product ingredients can be readily eliminated in the sewage system.

### Other information

The product is eliminated in waste water treatment plants by physical and biological means.

### Behaviour in environmental systems:

#### Bioaccumulative potential

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

Log Kow < 3

### Mobility in soil:

No further relevant information available.

### Ecotoxicological effects:

<b>Behaviour in sewage processing plants</b>	
<b>7173-51-5 di-n-decyl dimethylammonium chloride</b>	
EC0	2 mg/l (Activated Sludge)
<b>111-30-8 glutaral</b>	
EC50	208 mg/l (Activated Sludge)

### Remark:

If contaminated effluent water is properly entered into the sewage system, any interference with the degrading activity of the activated sludge organisms is not expected.

Depending on concentration, toxic effects on activated sludge organisms are possible.





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Additional ecological information:

AOX-indication:

The product does not contain substances, which can influence the AOX of waste water.  
Care should be paid to properly washing out the chloride when performing the AOX method.

The formulation contains the following heavy metals and their compounds according to Directive 2006/11/EC:

None

General Notes:

The product contains materials that are harmful to the environment.  
Avoid transfer to the environment.

Results of PBT and vPvB assessment:

PBT:

This mixture does not contain substances that meet the PBT criteria of REACH, annex XIII.

vPvB:

This mixture does not contain substances that meet the vPvB criteria of REACH, annex XIII.

Other adverse effects:

No further relevant information available.

### **13 Disposal considerations:**

Product:

Recommendation

Product must be disposed of according to local regulations pertaining to the disposal of hazardous waste.

European Waste catalogue	
16 00 00	Wastes not otherwise specified in the list
16 03 00	Off-specification batches and unused products
16 03 05*	Organic wastes containing dangerous substances

Contaminated packaging:

Recommendation:

Remove all product from packaging and clean thoroughly before recycling.

Recommended cleaning agent:

Water, if necessary with cleaning agent.



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## **14 Transport information:**

### **Land transport ADR/RID (cross-border / domestic):**



<u>ADR / RID Class:</u>	8 (C9) Corrosive substances.
<u>Kemler Number:</u>	80
<u>UN-Number:</u>	1760
<u>Packaging group:</u>	II
<u>Label</u>	8
<u>Special Marking:</u>	Symbol (fish and tree)
<u>Designation of goods:</u>	1760 CORROSIVE LIQUID, N.O.S (glutaral, di-n-decyl dimethylammonium chloride), ENVIRONMENTALLY HAZARDOUS
<u>Tunnel restriction code</u>	E

### **Maritime transport IMDG:**



<u>IMDG Class:</u>	8
<u>UN Number:</u>	1760
<u>Label</u>	8
<u>Packing group</u>	II
<u>EMS Number:</u>	F-A,S-B
<u>Marine pollutant:</u>	Yes
	Symbol (fish and tree)
<u>Correct technical name:</u>	CORROSIVE LIQUID, N.O.S. (glutaral, di-n-decyl dimethylammonium chloride)

### **Air transport ICAO-TI and IATA-DGR:**



<u>ICAO/IATA Class:</u>	8
<u>UN/ID Number:</u>	1760



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Label: 8  
Packing Group: II  
Correct technical name: CORROSIVE LIQUID, N.O.S. (glutaral, di-n-decyl dimethylammonium chloride)  
Remarks: Packing Instruction / Max. net weight  
Passenger aircraft: 852 / 5L  
Cargo aircraft: 856 /60L

Environmental hazards:  
 Product contains environmentally hazardous substances: di-n-decyl dimethylammonium chloride  
Special precautions for user:  
 Corrosive substances

## 15 Regulatory information

Code letter and hazard designation of product:



C Corrosive



N Dangerous for the environment

Hazard-determining components to labeling:

Glutaral  
 di-n-decyl dimethylammonium chloride

### Risk Phrases

20/22 Harmful by inhalation and if swallowed.  
 34 Causes Burns.  
 37 Irritating to respiratory system  
 42/43 May cause sensitisation by inhalation and skin contact  
 50 Very toxic to aquatic organisms

### Safety Phrases:

26 In case of contact with eyes rinse immediately with plenty o water and seek medical advice.  
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
 60 This material and its container must be disposed of as hazardous waste.  
 61 Avoid release to the environment. Refer to special instructions/safety data sheet.



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<b>Identity of biocidal active substance according to EC directive 98/8/EC</b>
di-n-decyl dimethylammonium chloride
glutaral

National regulations:

Information about limitation of use:

Take note of Directive 94/33/EC on the protection of young people at work.

Take note of Directive 92/85/EC on the safety and health of pregnant women at work.

Regulations which may apply in event of accident: Control of Major Accident Hazards (COMAH)

Critical quantity values according to the regulations on accidents should be adhered to.

Chemical safety assessment:

A Chemical safety assessment has not been carried out.

## 16 Other information:

This data is based on our current knowledge. However it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.

Relevant phrases:

H301 Toxic if swallowed  
H302 Harmful if swallowed  
H314 Causes severe skin burns and eye damage  
H317 May cause an allergic skin reaction  
H331 Toxic if inhaled  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H400 Very toxic to aquatic life

R22 Harmful if swallowed  
R23/25 Toxic by inhalation, and if swallowed.  
34 Causes burns  
42/43 May cause sensitisation by inhalation and skin contact.  
50 Very toxic to aquatic organisms.