



Material Safety Data Sheet	Page: 1/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

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

Product Name: Solcide P103

Product Code

Use/Description of Product

This product is a biocide according to Directive 98/8/EC and is recommended for use in the application fields listed in section 16.

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

2. Hazard Identification

Hazard Designation:



C – Corrosive

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.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



Material Safety Data Sheet	Page: 2/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

Classification system

The health and environment hazards of this preparation have been assessed by the conventional method described in annex II and III of the Dangerous Preparations Directive 1999/45 EC.

3. Compositional Information on Ingredients

Chemical Characterisation

Description:

Micro biocide based on Glutaraldehyde.

Dangerous Components		
CAS: 107-21-1 EINECS:203-473-3	Mono ethylene glycol Xn; R 22	25 - 50%
CAS: 111-30-8 EINECS:203-856-5	glutaral T, C, N; R23/25-34-42/43-50	10 - 25%
CAS: 55965-84-9	Mixture, containing 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2H-isothiazol-3-one (3:1) T, C, N; R 23/24/25-34-43-50/53	<2.5%
CAS: 67-56-1 EINECS:200-659-6	Methanol T, F; R 11-23/24/25-39/23/24/25	<2.5%

Additional Information:

The CAS No. of the single components is CIT: 26172-55-4; MIT: 2682-20-4

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.

After Skin Contact

Take off contaminated clothing immediately

Wash immediately with plenty of water and soap and rinse thoroughly.

Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.

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.



Material Safety Data Sheet	Page: 3/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

After Swallowing

Rinse mouth and drink plenty of water.

Do not induce vomiting. Call for medical help.

A person vomiting while lying on their back should be turned onto their side.

Information for the Doctor

The following symptoms may occur

Allergic skin reaction.

Corrosive damage to gastro-intestinal tract.

Skin reaction like itching, reddening, blistering may appear after hours.

Treatment

Treat skin and mucous membrane with antihistamine and corticoid preparations.

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, CO₂, 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_x)

Carbon Monoxide (CO)

Protective equipment

Wear self contained breathing apparatus.

Additional Information:

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

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.

Measures for environmental protection

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



Material Safety Data Sheet	Page: 4/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

Prevent from spreading (e.g. by dusting a ring of chemical binder).
Inform authorities in case of contamination of water sewage system.

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.

Polluted surfaces can be decontaminated with a solution containing 5% Sodium bisulphate and 5% Sodium bicarbonate.

In case of a spill drained to the sewer collect contaminated water in a suitable container and add 10% Sodium bisulphite solution. Contact supplier for further instructions.

7. Handling and Storage

Information for safe handling:

Open and handle containers with care.

Handle product in closed systems preferably.

Ensure that suitable extractors are available on processing machines.

Avoid splashes or spray.

Information about protection against explosion and fire:

Keep breathing equipment ready.

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

Must be stored in a collecting room.

8. Exposure controls and personal protection:

Additional information about design of technical systems:

No further data see item 7.



Material Safety Data Sheet	Page: 5/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

Components with critical values that require monitoring at the workplace:

107-21-1 mono ethylene glycol	
WEL (Great Britain)	Short-term value: 104** mg/m3, 40**ppm Long-term value: 10* 52** mg/m3, 20**ppm Sk *particulate **vapour
IOELV (European Union)	Shot-term value: 104 mg/m3, 40 ppm Long-term value: 52 mg/m3, 20 ppm Skin
111-30-8 glutaral	
WEL (Great Britain)	Short-term value: 0.2 mg/m3, 0.05 ppm Long-term value: 0.2 mg/m3, 0.05 ppm Sen
55965-84-9 Mixture, containing 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)	
WEL (Great Britain)	Long-term value: 0.2 mg/m3 Recommended
67-56-1 Methanol	
WEL (Great Britain)	Short-term value: 333mg/m3, 250 ppm Long-term value: 226mg/m3, 200 ppm Sk
IOELV (European Union)	Long-term value: 260 mg/m3, 200 ppm Skin

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.

Respiratory protection:

Permeation time is not known. It depends on different criteria and may be determined by the manufacturer according to the norm DIN EN 374-3.



For short-term or low-level exposure use respirator (e.g. filter type A2B2E2K2HG-P3). For longer or heavier exposure use self-contained respirator equipment.

Protection of hands:



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



Material Safety Data Sheet	Page: 6/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

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:
Appropriate material for short-term exposure: butyl rubber-gloves: 0.7 mm material thickness.
Penetration time in accordance with DIN EN 374 >30 min

Gloves made of the following materials are not suitable:
Leather Gloves.

Eye Protection



Face Shield

Body protection:
Protective clothing
Apron
Full head, face and neck protection

9 Physical and chemical properties:

General Information

Form: Liquid
Colour: Colourless to yellow
Odour: Characteristic

Change in condition

Melting Point / Melting range: Not determined
Boiling Point / Boiling range: 100°C

Flash point: 111°C

Ignition Temperature: 410°C

Self Inflammability: Product is not self igniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/steam mixtures is possible.



Material Safety Data Sheet	Page: 7/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

Critical values for explosion:

Lower: 1.8 Vol %
Upper: 12.8 Vol %

Vapour pressure at 20°C: 1.3 hPa

Density at 20°C: 1.10-1.20 g/cm³

Solubility in / Miscibility
With Water: Fully miscible

pH-value at 20°C: 2.8 – 3.3

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).

Protect against temperatures >35°C

Minimum shelf life: 2 months from production date.

Materials to be avoided:

Alkalis
Strong oxidizing agents
Reducing agents
Nucleophils

Dangerous reactions:

No dangerous reactions known.

Dangerous products of decomposition:

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

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification		
111-30-8 glutaral		
Oral	LD50	320 mg/Kg (rat)
Dermal	LD50	>2000 mg/Kg (rat)
Inhalative	LC50/ 4h	0.3 mg/l (rat)
55965-84-9 Mixture, containing 5-Chloro-2-methyl-2H-isthiazol-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)		
Oral	LD50	67 mg/Kg (rat)
Dermal	LD50	>140 mg/Kg (rat)
Inhalative	LC50/ 4h	0.17 mg/l (rat)



Material Safety Data Sheet	Page: 8/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

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.

12 Ecological information:

Information about elimination (persistence and degradability):

Other information:

The active ingredient(s) is (are) biodegradable up to the MIC for bacteria.

Ecotoxicological effects:

<u>Aquatic toxicity:</u>	
111-30-8 glutaral	
EC50 / 48 hrs	30 mg/l (Daphnia)
IC50 72 hrs	0.84 mg/l (Selenastrum capricornutum)
LC50 / 96 hrs	46 mg/l (rainbow trout)
55965-84-9 Mixture containing 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)	
EC50 / 120 hrs	0.043 mg/l (Filamentous Algae)
EC50 / 48 hrs	0.12 mg/l (Daphnia)
LC50 / 96 hrs	0.32 mg/l (Bluegill sunfish)
	0.22 mg/l Oncorhynchus mykiss

<u>Behaviour in sewage processing plants</u>	
111-30-8 glutaral	
EC50	208 mg/l (Activated Sludge)

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

Additional ecological information:

AOX-indication:

Can affect the AOX-value of the effluent water. The active ingredient is not persistent, it is degraded under separation of the chlorine atom.

The formulation contains the following heavy metals and their compounds according to EC guideline No 76/464 EC:

Due to its formulation the product does not contain any heavy metals.



Material Safety Data Sheet	Page: 9/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

General Notes:

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

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:

Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning.

Recommended cleaning agent:

Water, if necessary with cleaning agent.

14 Transport information:

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



ADR / RID Class: 8 (C3) Corrosive substances.
Kemler Number: 80
UN-Number: 3265
Packaging group: II
Label 8

Designation of goods: 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(glutaral)



Material Safety Data Sheet	Page: 10/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

Maritime transport IMDG:



IMDG Class: 8
UN Number: 3265
Label: 8
Packing group: II
EMS Number: F-A,S-B
Correct technical name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(glutaraldehyde)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 8
UN/ID Number: 3265
Label: 8
Packing Group: II
Correct technical name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(glutaraldehyde)
Remarks: Packing Instruction / Max. net weight
Passenger aircraft: 818 / 5L
Cargo aircraft: 820 /60L

15 Regulatory information

Designation according to EC guidelines:

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous materials (CHIP)

Code letter and hazard designation of product:



C Corrosive



Material Safety Data Sheet	Page: 11/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

Hazard-determining components o labeling:

Glutaral

Mixture, containing 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)

Mono ethylene glycol

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
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety Phrases:

- 23 Do not breathe fumes.
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.

Identity of biocidal active substance according to EC directive 98/8/EC:
Glutaral
Mixture, containing 5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)

National regulations

Regulations which may apply in event of accident: Control of Major Accident Hazards (COMAH)
Not listed in the COMAH regulation.

Water hazard class:

Water danger class 3 (Self assessment): extremely hazardous for water.

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.

R-phrases relevant to the product's hazardous ingredients:

- 11 Highly flammable
22 Harmful if swallowed
23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
23/25 Toxic by inhalation and if swallowed.



Material Safety Data Sheet	Page: 12/12
	Revision Nr: 0
	Date: 12/05/2010
Solcide P 103	Supersedes: 0/0/00

- 34 Causes burns
39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed
42/43 May cause sensitisation by inhalation and skin contact.
43 May cause sensitisation by skin contact.
50 Very toxic to aquatic organisms.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Training hints

Further information under the regulations of use can be taken from the Product Data Sheet.

Recommended application fields and dose levels for biocides:

In-can preservatives (PT 6): 0.5-5.0 g/Kg

Preservatives for liquid-cooling and processing systems (PT 11): 0.5-5.0 g/Kg

Slimicides (PT 12): 0.5-5.0 g/Kg