



MATERIAL SAFETY DATA SHEET

Conforms to 2001/58/EC Issued: 11/04/2006

PRODUCT NAME: STARSHINE DISINFECTANT/SANITIZER

I. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	: StarShine Disinfectant/Sanitizer	Product Number: 606
PRODUCT USE	: Water based disinfectant sanitizer concentrate	

MANUFACTURER	: Pioneer Eclipse Corp.	
P.O.BOX	: 909	
ADDRESS	: 1 Eclipse Road, Sparta, North Carolina, 28675, USA	
PHONE	: +1 336 372 8080	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation: Preparation

INFORMATION ON HAZARDOUS INGREDIENTS

Chemical Name	Einecs No.	Weight %	CAS No.	Symbol	R-phrases *
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	269-919-4	5	68391-01-5	C (Corrosive) N (Dangerous for the Environment)	R10, R21/22, R34, R50
Quaternary ammonium compounds, C12-18-alkyl (ethylphenyl) methyl-dimethyl, chlorides	273-318-2	5	68956-79-6	C (Corrosive) N (Dangerous for the Environment)	R10, R21/22, R34, R50

* see section 16 for the full text of relevant R-phrases

3. HAZARDS IDENTIFICATION

Physical/chemical hazards: Corrosive
Human health hazards: Corrosive
Environmental hazards: Dangerous to the Environment

4. FIRST AID MEASURES

EFFECTS AND SYMPTOMS

Inhalation: May be harmful if inhaled. May cause irritation and corrosive effects to nose, throat and respiratory tract.
Ingestion: May cause burns to mouth, throat and stomach. May be harmful if swallowed.
Skin contact: May cause permanent damage. Harmful in contact with skin.
Eye contact: May cause permanent damage.

FIRST AID MEASURES

Inhalation: If breathing is difficult: Remove to fresh air. Get medical attention immediately.
Ingestion: Do not induce vomiting! Immediately drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Skin contact: Immediately wash off with plenty of water for at least 15 minutes. Get medical attention immediately.
Eye contact: Immediately wash out with water for at least 15 minutes. Get medical attention immediately.

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5. FIRE FIGHTING MEASURES

- Extinguishing media:** Dry chemical, water spray, foam, carbon dioxide
Hazardous combustion products: None
Unusual fire and explosion hazards: Materials can splatter above 100°C/212°F.
Special fire fighting procedures: Corrosive material (See Sections 8 and 10).

6. ACCIDENTAL RELEASE MEASURES

Put on appropriate personal protective equipment (see Section 8).

- Small spills:** Absorb spill on inert material (e.g. sand, earth) and dispose of as waste material in accordance with national and regional provisions.
Large spills: Keep spectators away. Floors may be slippery; use care to avoid falling. Dike and contain spill with inert material (e.g. sand, earth). Transfer liquid to containers for recovery or disposal and solid diking material to separate containers for disposal. Keep spills and cleaning runoff out of sewers and open bodies of water.

7. HANDLING AND STORAGE

- Handling:** Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use only in well-ventilated areas. Avoid breathing vapours or spray mists. Remove and wash contaminated clothing and footwear before re-use.
Storage: Storage temperature (Max. 60°C/140°F) (Min. 1°C/34°F). Keep from freezing, product may coagulate. Keep container sealed when not in use. Keep out of reach of children.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

- Exposure limit values:** None established
Exposure controls: No special ventilation requirements. Ensure adequate general ventilation.

OCCUPATIONAL EXPOSURE CONTROLS

- Respiratory protection:** No specific personal protection is required.
Hand protection: Rubber gloves recommended
Eye protection: Safety glasses recommended
Skin protection: If major exposure is possible, wear suitable protective clothing such as rubber boots, apron, etc.

Environmental exposure controls: No specific environmental exposure controls required.

9. PHYSICAL AND CHEMICAL PROPERTIES

GENERAL INFORMATION

Appearance: Thin colorless liquid

Odour: Slight quaternary ammonium chloride

IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

pH: 6.95 to 7.45

Flash point: None

Oxidizing properties: Not an oxidizer

Relative density: 0.99 kg/l @ 20°C

Partition coefficient (n-octanol/water): Not determined

Vapour density: Greater than air

Other information: N/A

Boiling point/boiling range: 100°C

Explosive properties: None

Vapour pressure: Greater than water

Solubility: 100% soluble (dispersible) in water

Viscosity: Less than 10 CPS @ 20°C

Evaporation rate: Less than water

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10. STABILITY AND REACTIVITY

Conditions to avoid: None known
Materials to avoid: May react or be incompatible with acids and chlorine bleach.
Hazardous decomposition products: None known

11. TOXICOLOGICAL INFORMATION

COMPONENT SUMMARY

Quaternary ammonium chloride compounds

LD₅₀ = > 50-500 mg/kg oral, rat

Potential Health Effects

Eye: Causes eye irritation. Causes redness and pain.
Skin: Causes skin irritation. Causes redness and pain.
Ingestion: Harmful if swallowed. Causes digestive tract irritation with abdominal pain and vomiting.
Inhalation: Harmful if inhaled. Irritation may lead to chemical pneumonitis and pulmonary edema. Causes severe irritation of upper respiratory tract with coughing, and breathing difficulty.
Chronic: Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis.

CARCINOGENICITY: Not expected to occur.

PREPARATION SUMMARY

ACUTE TOXICITY:

Corrosive. Oral LD₅₀ estimated to be between 200 - 2000 mg/kg. Dermal LD₅₀ estimated to be between 400 - 2000 mg/kg. LC₅₀ estimated to be between 2 - 20 mg/l/4hrs.

LOCAL EFFECTS

Skin contact: See section 4
Eye Contact: See section 4
Sensitization: None known
Chronic effects: None known

SPECIFIC EFFECTS

Carcinogenicity: None known
Reproductive effects: None known
Teratogenicity: None known
Mutagenicity: None known

12. ECOLOGICAL INFORMATION

COMPONENT SUMMARY

Quaternary ammonium chloride compounds:

Acute Aquatic Toxicity: Rainbow trout (96 hr), LC₅₀ 0.930 ppm

PREPARATION SUMMARY

ECOTOXICITY: No information available

13. DISPOSAL

Disposal of this material should be in accordance with local, regional and national regulations.

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14. TRANSPORT INFORMATION

INTERNATIONAL TRANSPORTATION REGULATIONS:

UN number: UN1903

Packing group: III

LAND-ROAD/RAILWAY

Proper shipping name: Corrosive liquid, n.o.s. mixture contains quaternary ammonium chloride

ADR/RID class: 8

ADR/RID item number: 66°c

SEA

Proper shipping name: Corrosive liquid, n.o.s. mixture contains quaternary ammonium chloride

IMDG class: 8

Medical First Aid Guide (MFAG): 760

Emergency Schedules (EmS): 8-15

Marine Pollutant: none

15. REGULATORY INFORMATION

NATIONAL REGULATIONS: No additional national regulations are known to the supplier.

EU REGULATIONS

Hazard symbol:



EU Classification: Corrosive and Dangerous for the Environment (67/548/EEC-88/379/EEC).

Risk phrases: See Section 16.

Safety phrases:
 S2- Keep out of the reach of children.
 S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S28a- After contact with skin, wash immediately with plenty of water.
 S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
 S38- In case of insufficient ventilation, wear suitable respiratory equipment.
 S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S46- If swallowed, seek medical advice immediately and show this container or label.
 S61- Avoid release to the environment.

EINECS Status: All ingredients are included in the EINECS inventories.

CANADA CPR Status: This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

PRODUCT NAME: STARSHINE DISINFECTANT/SANITIZER**16. OTHER INFORMATION****Relevant R phrases:**

R10-Flammable.

R21/22- Harmful in contact with skin and if swallowed.

R34- Causes burns.

R36/37/38-Irritating to eyes, respiratory system and skin.

R50-Very toxic to aquatic organisms.

Issued by: Timothy J Wright, Chemical Research and Development Manager

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