

SAFETY DATA SHEET

Safety Data Sheet according to (EC) No. 1907/2006.

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

1.1. Product identifier:

Solution 2 – PROPIDIUM IODIDE

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

Aqueous preparation for research and analysis. Restricted to professional users.

1.3. Details of the supplier of the safety data sheet:

ChemoMetec A/S

Gydevang 43

Phone: (+45) - 48 13 10 20

DK - 3450 Alleroed

Fax: (+45) - 48 13 10 21

Denmark

e-mail: contact@chemometec.com

Responsible person for the safety data sheet (e-mail): contact@chemometec.com

1.4. Emergency telephone number:

NHS (England or Wales): Dial 111 or 0845 4647 NHS 24 (Scotland): Dial 111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture:

CLP (1272/2008): None

2.2. Label elements:

EUH210: Safety data sheet available on request.

2.3. Other hazards: None known.

PBT/vPvB: No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures:

% w/w	Substance name	CAS-no.	EC-no.	Index-no.	REACH reg.no.	Classification
0.1	Octylphenol Ethoxylate (Triton X-100)	9002-93-1	Polymer	-	-	Acute Tox. 4;H302 Eye Dam.1;H318 Aquatic Chronic 2;H411
<0.1	Propidium iodide (PI)	25535-16-4	247-081-0	-	-	Skin irrit.2;H315 Eye irrit.2;H319 STOT SE 3;H335

Propidium iodide (PI): 3,8-diamino-5-[3-(diethylmethylammonio)propyl]-6-phenylphenanthridinium diiodide

Wording of hazard statements - see section 16.

SECTION 4: First-aid measures

4.1. Description of first aid measures:

Inhalation: Move the affected person to fresh air. Keep at rest. If needed: Get medical attention.

Skin contact: Remove contaminated clothing and wash skin with water and mild soap. If irritation persists: Seek medical advice.

Eye contact: Immediately flush with water or physiological salt water for at least 15 minutes, holding eyelids open, remember to remove contact lenses, if any. If irritation persists: Seek medical advice.

Ingestion: Rinse mouth and drink plenty of water. In case of discomfort: Seek medical advice.

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

May cause slight irritation of eyes, skin, lungs and gastrointestinal tract.

4.3. Indication of any immediate medical attention and special treatment needed:

Show this safety data sheet to a physician or emergency ward.

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SECTION 5: Fire-fighting measures

5.1. Extinguishing media:

Not flammable.

5.2. Special hazards arising from the substance or mixture:

Not relevant (the product is not combustible).

5.3. Advice for firefighters:

When extinguishing surrounding fires use breathing apparatus with an independent source of air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment - see section 8.

6.2. Environmental precautions:

Do not empty into drains – see section 12. Inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up:

Absorb spilled liquid with inert material and place in a suitable container for disposal. Clean with water. Further handling of spillage - see section 13.

6.4. Reference to other sections:

See references above.

SECTION 7: Handling and storage

7.1. Precautions for safe handling:

Provide adequate ventilation. Avoid contact with skin, eyes and clothing. After work, wash hands with water and mild soap.

7.2. Conditions for safe storage, including any incompatibilities:

Store in a tightly closed original container at a well-ventilated area.

7.3. Specific end use(s):

See section 1.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters:

Occupational exposure limits (EH40/2005): None

DNEL/PNEC: No CSR.

8.2. Exposure controls:

Appropriate engineering controls: None particular.

Personal protective equipment:

Inhalation: Normally not necessary

Skin: Wear protective gloves of e.g. nitrile or butyl (EN374). Breakthrough time, approx. 3 hours.

Eyes: Wear tight fitting safety goggles (EN166) when there is a risk of splashes.

Environmental exposure controls: None particular.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

Appearance:	Red liquid
Odour:	Odourless
Odour threshold:	No available data
pH:	~ 7.4
Melting point / freezing point (°C):	~ 0
Initial boiling point and boiling range (°C):	~ 100
Decomposition temperature (°C):	No available data
Flash point (°C):	>100
Evaporation rate:	No available data
Flammability (solid, gas):	Not relevant
Upper/lower flammability or explosive limits (vol.-%):	Not relevant
Vapour pressure (mbar, 25°C):	No available data
Vapour density (air=1):	No available data
Relative density (g/ml):	~ 1.0
Solubility:	Miscible

SECTION 9: Physical and chemical properties (continued)

Partition coefficient: n-octanol/water, Log K_{ow} :	No available data
Auto-ignition temperature (°C):	No available data
Viscosity:	No available data
Explosive/Oxidising properties:	Not relevant
9.2. Other information:	None relevant

SECTION 10: Stability and reactivity**10.1. Reactivity:**

No available data.

10.2. Chemical stability:

Stable under the recommended storage conditions - see section 7.

10.3. Possibility of hazardous reactions:

None known.

10.4. Conditions to avoid:

Excessive heating and direct sunlight.

10.5. Incompatible materials:

Strong oxidizers..

10.6. Hazardous decomposition products:

When heated to high temperatures (decomposition) toxic gasses are formed.

SECTION 11: Toxicological information**11.1. Information on toxicological effects:**

Hazard class	Data	Test	Data source
Acute toxicity:			
Inhalation	No available/applicable data	-	-
Dermal	No available/applicable data	-	-
Oral	LD ₅₀ (rat) = 1800 mg/kg (Octylphenol ethoxylate)	OECD 401	RTECS
Corrosion/irritation:	Moderate eye irritation, 10 µl/24h, rabbit (Octylphenol ethoxylate)	Draize	RTECS
Sensitization:	No available/applicable data	-	-
CMR:	TD _{Lo} (rat) = 5,7 mg/kg (2 weeks after mating): "Effects on newborn " (Octylphenol ethoxylate)	No info	RTECS

Information on likely routes of exposure: Inhalation, skin and ingestion.

Symptoms:

Inhalation: Vapours may cause slight irritation to the airways.

Skin: May cause slight irritation by prolonged contact with skin.

Eyes: May cause slight eye irritation.

Ingestion: May cause slight irritation of the gastrointestinal tract, nausea, vomiting and headache.

Chronic effects: Long term or repeated skin contact may degrease and cause red, dry, cracked and thickened skin.

SECTION 12: Ecological information**12.1. Toxicity:**

Aquatic	Data	Test (Media)	Data source
Fish	LC ₅₀ (Pimephales promelas, 96h) = 4,5 mg/l (Octylphenol ethoxylate)	No Info (FW)	EPA Ecotox
Daphnia	EC ₅₀ (Daphnia magna, 48h) = 11,2 mg/l (Octylphenol ethoxylate)	OECD 202 (FW)	EPA Ecotox
Algae	No available/applicable data	-	-

12.2. Persistence and degradability:

Biological degradation of Octylphenol ethoxylate may form Octylphenol, which is toxic and not readily degradable.

12.3. Bioaccumulative potential:

Octylphenol ethoxylate: Log K_{ow} = 4.86 – possible significant bioaccumulation.

12.4. Mobility in soil:

Octylphenol ethoxylate: K_{oc} = 800-1800. Low mobility in soil is expected.

12.5. Results of PBT and vPvB assessment:

No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

12.6. Other adverse effects:

Octylphenol ethoxylate is included on the Danish Environmental Agency list of undesirable substances, because of the oestrogenic effect of its degradation compounds.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods:

The mixture is to be considered as hazardous waste. Disposal should be according to local, state or national legislation. Dispose of through authority facilities or pass to chemical disposal company.

EWC-code: 16 05 09 (mixture itself)
15 02 03 (paper towel, inert material etc. contaminated with the mixture)

SECTION 14: Transport information

Not dangerous goods (ADR/RID/IMDG/IATA).

14.1. UN-no.: None

14.2. UN proper shipping name: None

4.3. Transport hazard class(es): None

14.4. Packing group: None

14.5. Environmental hazards: No

14.6. Special precautions for user: None

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code: Not relevant.

SECTION 15: Regulatory information

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

Octylphenol ethoxylat is listed in COM (1999) 706 (EU): Community Strategy for Endocrine Disrupters a range of substances suspected of interfering with the hormone systems of humans and wildlife.

Octylphenol ethoxylate (4-Nonylphenol, branched and linear, ethoxylated) is included in REACH Annex XIV, substances subject to authorisation, However, R & D substances are exempted from this authorization.

15.2. Chemical Safety Assessment:

No CSR.

SECTION 16: Other information

Hazard statements mentioned in section 2 and 3:

H302: Harmful if swallowed.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H411: Toxic to aquatic life with long lasting effects.

EUH210: Safety data sheet available on request

Abbreviations:

CMR = Carcinogenicity, mutagenicity and reproductive toxicity.

CSR = Chemical Safety Report

DNEL = Derived No-Effect Level

EC₅₀ = Effect Concentration 50%

FW = Fresh Water

LC₅₀ = Lethal Concentration 50%

LD₅₀ = Lethal Dose 50%

PBT = Persistent, Bioaccumulative, Toxic

PNEC = Predicted No-Effect Concentration

vPvB = very Persistent, very Bioaccumulative

Literature:

ECHA = European Chemicals Agency

EPA Ecotox = The US Environmental Protection Agency's database on ecotoxicological effects for chemicals.

IUCLID = International Uniform Chemical Information Database.

RTECS = Register of Toxic Effects of Chemical Substances

Training advice:

No special training is required. However, the user should be well instructed in the execution of his/her task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.

Other information:

Prepared based on the information available to Alttox A/S as of August 2018.

Changes since the previous edition:

Section 15