



SAFETY DATA SHEET REFRESH

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

1.1. Product identifier

Product name REFRESH

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

Identified uses Biocides for water treatment.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Starbrite Chemicals Ltd.
Unit 27, Bolney Grange Business Park,
Stairbridge Lane,
Bolney,
West Sussex,
RH17 5PB.
01444 237700
01444 237701
enquiries@starbrite.co.uk

1.4. Emergency telephone number

Emergency telephone +44 (0)1444 237 710 (Mon-Fri 8:00am-5:00pm GMT)

National emergency telephone number +44 (0)870 600 6266 [UK National Poisons Control Information Service (NPIS) Center]

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified

Health hazards Acute Tox. 2 - H330 Skin Sens. 1 - H317 STOT RE 1 - H372

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) T+; R26. T; R48/23. R43

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements H317 May cause an allergic skin reaction.
H330 Fatal if inhaled.
H372 Causes damage to organs through prolonged or repeated exposure if inhaled.

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Precautionary statements	P260 Do not breathe vapour/spray. P261 Avoid breathing vapour/spray. P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P284 [In case of inadequate ventilation] wear respiratory protection. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER/doctor. P314 Get medical advice/attention if you feel unwell. P320 Specific treatment is urgent (see medical advice on this label). P321 Specific treatment (see medical advice on this label). P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/container in accordance with national regulations.
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Contains 2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol		30-60%
CAS number: 4719-04-4	EC number: 225-208-0	REACH registration number: 01-2119529226-41-XXXX
Classification	Classification (67/548/EEC or 1999/45/EC)	
Acute Tox. 4 - H302	T+; R26. T; R48/23. Xn; R22. R43	
Acute Tox. 2 - H330		
Skin Sens. 1 - H317		
STOT RE 1 - H372		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	If in doubt, get medical attention promptly.
Inhalation	Get medical attention if any discomfort continues.
Ingestion	Give plenty of water to drink. Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Rinse with water.
Eye contact	Get medical attention if any discomfort continues. Remove affected person from source of contamination. Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 10 minutes.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

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

General information	Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
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Inhalation	Toxic by inhalation.
Ingestion	Toxic if swallowed. A single exposure may cause the following adverse effects: Nausea, vomiting.
Skin contact	Toxic in contact with skin. May cause discomfort. Prolonged and frequent contact may cause redness and irritation.
Eye contact	Toxic by eye contact. Prolonged or repeated exposure may cause severe irritation.

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

Notes for the doctor	Treat symptomatically.
Specific treatments	Not applicable.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Not applicable.

5.2. Special hazards arising from the substance or mixture

Specific hazards	The product is non-combustible. None known.
Hazardous combustion products	None known.

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours.
Special protective equipment for firefighters	Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with eyes and prolonged skin contact.
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6.2. Environmental precautions

Environmental precautions	No negative effects on the aquatic environment are known. Not regarded as dangerous for the environment.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Contain spillage with sand, earth or other suitable non-combustible material. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
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6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. For waste disposal, see Section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Avoid contact with skin, eyes and clothing. Avoid contact with eyes and prolonged skin contact.
Advice on general occupational hygiene	Clean equipment and the work area every day. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Wash contaminated clothing before reuse.

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7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep only in the original container. Keep container tightly closed in a cool place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Avoid inhalation of vapours and spray/mists. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Contact lenses should not be worn when working with this chemical. Chemical splash goggles.

Hand protection

Wear protective gloves. To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product. Wash promptly with soap and water if skin becomes contaminated. Wash contaminated clothing before reuse.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.

Environmental exposure controls

Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Clear liquid.

Colour

Colourless to pale yellow.

Odour

Amine.

pH

pH (diluted solution): 10 @ 10%

Relative density

~ 1.1

Solubility(ies)

Soluble in water.

Viscosity

Thin

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

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Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None known.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight. Avoid freezing.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents. Strong reducing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products May emit toxic fumes under fire conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects This product is toxic.

Acute toxicity - oral

ATE oral (mg/kg) 3,333.33333333

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 1.66666667

Inhalation Vapours may irritate throat/respiratory system. Toxic by inhalation.

Ingestion May cause discomfort if swallowed. Toxic if swallowed.

Skin contact The liquid may be irritating to eyes, respiratory system and skin. Toxic in contact with skin. May be absorbed through the skin.

Eye contact May cause irritation. May cause serious eye damage. Toxic by eye contact.

SECTION 12: Ecological Information

Ecotoxicity The product may have adverse effects on organisms in soil and water.

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

12.3. Bioaccumulative potential

Bioaccumulative potential Not known.

12.4. Mobility in soil

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations

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SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	2810
UN No. (IMDG)	2810
UN No. (ICAO)	2810
UN No. (ADN)	2810

14.2. UN proper shipping name

Proper shipping name (ADR/RID) TOXIC LIQUID, ORGANIC, N.O.S. (TRIAZINES)

Proper shipping name (IMDG) TOXIC LIQUID, ORGANIC, N.O.S. (TRIAZINES)

Proper shipping name (ICAO) TOXIC LIQUID, ORGANIC, N.O.S. (TRIAZINES)

Proper shipping name (ADN) TOXIC LIQUID, ORGANIC, N.O.S. (TRIAZINES)

14.3. Transport hazard class(es)

ADR/RID class	6.1
ADR/RID classification code	T1
ADR/RID label	6.1
IMDG class	6.1
ICAO class/division	6.1
ADN class	6.1

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ADN packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-A, S-A
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	60
Tunnel restriction code	(E)

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14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
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15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	Only trained personnel should use this material.
Issued by	HS&E Manager.
SDS number	5650
Risk phrases in full	R22 Harmful if swallowed. R26 Very toxic by inhalation. R43 May cause sensitisation by skin contact. R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.
Hazard statements in full	H302 Harmful if swallowed. H317 May cause an allergic skin reaction. H330 Fatal if inhaled. H372 Causes damage to organs through prolonged or repeated exposure if inhaled.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.