

**SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identifier**

Product name : STAR BRITE BIO-ORIGIN ANTIFREEZE  
Product code : 325XX

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

Application : SU21 Consumer product. PC4 Antifreeze and de-icing products.

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

Supplier : Star Brite Europe Inc.  
Kryptonweg 7  
NL-3812 RZ Amersfoort, The Netherlands  
Telephone : +31 33 209 30 00  
E-mail : europe@starbrite.com  
Website : www.starbrite.com

**1.4. Emergency telephone number**

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:  
NL - Telephone : 703-527-3887 (24/7)

**SECTION 2 HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

CLP classification : Not classified as dangerous according to Regulation (EC) No 1272/2008.  
(1272/2008/EC)  
Human health hazards : May produce an allergic reaction.  
Physical/chemical hazards : Not classified as dangerous according to statutory EC-Directives.  
Environmental hazards : Not classified as dangerous according to statutory EC-Directives.

**2.2. Label elements**

Label elements (1272/2008/EC):  
Hazard pictograms : None.  
Signal word : Not applicable.  
H- and P-phrases : EUH208 Contains ... May produce an allergic reaction. Reference is made to additional labelling for full text of EUH208\*.  
Labelling of packagings where the contents do not exceed 125 ml and it is technically impossible to list all phrases:  
Hazard pictograms : None.  
Signal word : Not applicable.  
H- and P-phrases : EUH208 Contains ... May produce an allergic reaction. Reference is made to additional labelling for full text of EUH208\*.  
Additional labelling (for all packaging sizes)  
: \* Contains 1,2-Benzisothiazol-3(2H)-one . May produce an allergic reaction.

**2.3. Other hazards**

Other information : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

### 3.2. Mixtures

Product description : Mixture.

Information on hazardous substances:

Substance name	Concentration (w/w) (%)	CAS nr.	EC number	Remark	REACH nr.
Glycerol	25 - < 50	56-81-5	200-289-5	MAC	
1,2-Benzisothiazol-3(2H)-one	< 0,05	2634-33-5	220-120-9		

Substance name	Hazard Class	H-phrases	Pictograms	
Glycerol	-----	-----	-----	
1,2-Benzisothiazol-3(2H)-one	Acute Tox. 4; Skin Irrit. 2; Skin Sens. 1; Eye Dam. 1; Aquatic Acute 1	H302; H315; H317; H318; H400	GHS07; GHS07; GHS07; GHS05; GHS09	H317 : C >= 0,05 %

Occupational exposure limit(s), if relevant, are listed in section 8.

Reference is made to chapter 16 for full text of each relevant H phrase.

## SECTION 4 FIRST-AID MEASURES

### 4.1. Description of first aid measures

First aid measures

- Inhalation : Move victim into fresh air. Consult a doctor if victim feels unwell.
- Skin contact : Take off contaminated clothing. Wash off skin with plenty of water and soap before product dries up. Consult a doctor if irritation occurs.
- Eye contact : Wash out with (lukewarm) water. Remove contact lenses. Consult a doctor if irritation persists.
- Ingestion : Do not induce vomiting. Do rinse the mouth. Give one glass of water. Never give anything by mouth to an unconscious person. Consult a doctor if victim feels unwell.

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

Effects and symptoms

- Inhalation : No specific effects and/or symptoms are known.
- Skin contact : May produce an allergic reaction. May cause dry skin.
- Eye contact : May cause stinging of eyes and redness.
- Ingestion : May cause a feeling of sickness, vomiting and diarrhoea.

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

Note to physicians : None known.

## SECTION 5 FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

Extinguishing media

- Suitable : Carbondioxide (CO2). Foam. Dry chemical. Water fog.
- Not suitable : None known.

### 5.2. Special hazards arising from the substance or mixture

- Special exposure hazards : None known.
- Hazardous thermal decomposition products : Carbon monoxide may be evolved if incomplete combustion occurs.

### 5.3. Advice for firefighters

Special protective equipment for fire-fighters : Use adequate respiratory equipment in case of insufficient ventilation.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles.

**6.2. Environmental precautions**

Environmental precautions : Avoid release of product into sewers, surface water and/or ground water. In case of large spills: contain with dike.

**6.3. Methods and material for containment and cleaning up**

Methods for cleaning up : Collect spilled material in containers. Absorb residues in sand or other inert material. Dispose at an authorised waste collection point. Wash away remainder with plenty of water and soap.

**6.4. Reference to other sections**

Reference to other sections : See also section 8.

**SECTION 7 HANDLING AND STORAGE**

**7.1. Precautions for safe handling**

Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Avoid contact with skin and eyes. Avoid splashing. Wear protective clothing.

**7.2. Conditions for safe storage, including any incompatibilities**

Storage : Keep frost-free, in a cool, dry and well-ventilated place (< 35 °C).  
 Recommended packaging : Keep only in the original container.  
 Non recommended packaging : Steel (except stainless steel).

**7.3. Specific end use(s)**

Use : Use only as directed.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

Occupational exposure limits : Occupational exposure limits have not been established for this product. Derived no-effect levels (DNEL) have not been established for this product. Predicted no-effect concentrations (PNEC) have not been established for this product.

Workplace exposure limits (mg/m<sup>3</sup>):

Chemical name	Country	TWA 8 hour (mg/m <sup>3</sup> )	STEL 15 min (mg/m <sup>3</sup> )	Comments	Source
Glycerol	GB	10	-	Mist	MAC: EE, GR, ES, PL, BE, GB, FR.
Glycerol		10	-	Mist	

Derived no-effect level (DNEL) for workers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect

Glycerol	Inhalation			56 mg/m3	
1,2-Benzisothiazol-3(2H)-one	Inhalation				6.81 mg/m3
	Dermal				0.966 mg/kg bw/day

Derived no-effect level (DNEL) for consumers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Glycerol	Inhalation	33 mg/m3			
1,2-Benzisothiazol-3(2H)-one	Oral				229 mg/kg bw/day
	Inhalation				1.2 mg/m3
	Dermal				0.345 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
Glycerol	Water	0,885 mg/l	0,0885 mg/l	
	Sediment	3,3 mg/kg	0,33 mg/kg	
	Intermittent water			8,85 mg/l
1,2-Benzisothiazol-3(2H)-one	STP			1000 mg/l
	Soil			0,141 mg/kg
	Water	0.00403 mg/l	0.000403 mg/l	
	Sediment	0.0499 mg/kg	0.00499 mg/kg	
	Soil			1.03 mg/l
				3 mg/kg

## 8.2. Exposure controls

Engineering measures : Use only in well-ventilated areas. Comply with standard precautionary measures for working with chemicals.

Hygienic measures : When using do not eat, drink or smoke.

Personal protective equipment:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.

Body protection : Use of specific protective industrial clothing is not required under normal conditions of use. In case of large scale exposure wear suitable protective clothing, overalls or suit, and similar boots. Suitable material: nitril. Indication of permeation breakthrough time: 6 hours.

Respiratory protection : Take care of sufficient ventilation.

Hand protection : Under normal conditions of use specific gloves are not required. Wear appropriate gloves in case of frequent or prolonged use and in case of large scale exposure. Suitable material: nitril. ± 0,5 mm. Indication of permeation breakthrough time: 6 hours.

Eye protection : Wear appropriate safety glasses when there is danger of possible eye contact.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid.	
Colour	: Green.	
Odour	: Characteristic.	
Odour threshold	: Not known.	
pH	: 8	
Solubility in water	: Soluble.	
Partition coefficient (n-octanol/water)	: Not known.	Not measured. Not relevant for mixtures.
Flash point	: > 100 °C	
Flammability (solid, gas)	: Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	: > 332 °C	
Boiling point/boiling range	: 100 °C	

Melting point/melting range	: Not known.	
Explosive properties	: Not an explosive.	
Explosion limits (% in air)	: Not known.	Lower explosion limit in air (%): 2,7 ( Glycerol )
		Upper explosion limit in air (%): 19 ( Glycerol )
Oxidising properties	: Not oxidizing.	Does not contain oxidizing substances.
Decomposition temperature	: Not applicable.	
Viscosity (20°C)	: Not known.	
Viscosity (40°C)	: Not relevant.	The product contains < 10% substances having an aspiration hazard.
Vapour pressure (20°C)	: Not known.	
Relative vapour density	: Not relevant.	The solvent content of this product is less than 1%.
Relative density (20°C)	: 1,15 g/ml	
Particle characteristics	: Not applicable.	Liquid.

**9.2. Other information**

Other information : Not relevant.

<b>SECTION 10 STABILITY AND REACTIVITY</b>
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**10.1. Reactivity**

Reactivity : See sub-sections below.

**10.2. Chemical stability**

Stability : Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

Reactivity : No other hazardous reactions known.

**10.4. Conditions to avoid**

Conditions to avoid : See section 7.

**10.5. Incompatible materials**

Materials to avoid : No specific recommendations.

**10.6. Hazardous decomposition products**

Hazardous decomposition products : Not known.

<b>SECTION 11 TOXICOLOGICAL INFORMATION</b>
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**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

No toxicological research has been carried out on this product.

Inhalation

Acute toxicity	: Calculated LC50: > 10 mg/l. Ingredients of unknown toxicity: < 1 %. ATE: > 5 mg/l. Low toxicity. Not classified - based on available data, the classification criteria are not met. No specific effects and/or symptoms are known.
Corrosion/irritation	: No specific effects and/or symptoms are known. Not classified - based on available data, the classification criteria are not met.
Sensitisation	: Does not contain substances classified as respiratory sensitiser. Not classified - based on available data, the classification criteria are not met.
Carcinogenicity	: Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.
Mutagenicity	: Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

**Skin contact**

- Acute toxicity : Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : Slight irritation possible. Not classified - based on available data, the classification criteria are not met.
- Sensitisation : May produce an allergic reaction.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

**Eye contact**

- Corrosion/irritation : Slight irritation possible. Not classified - based on available data, the classification criteria are not met.

**Ingestion**

- Acute toxicity : Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Aspiration : Not classified - based on available data, the classification criteria are not met. Does not contain substances with an aspiration hazard.
- Corrosion/irritation : May cause a feeling of sickness, vomiting and diarrhoea.
- Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.
- Reprotoxicity : Development: Not expected to be reprotoxic. Development: Not classified - Based on available data, the classification criteria are not met. Fertility: not expected to be reprotoxic. Fertility: Not classified - based on available data, the classification criteria are not met.

**Toxicological information:**

Chemical name	Property		Method	Test animal
1,2-Benzisothiazol-3(2H)-one	LD50 (oral)	1020 mg/kg bw		Rat
	LC50 (inhalation)	100 mg/m3		Rat
	Skin irritation	Irritant		Rabbit
	Eye irritation	Severely irritant		Rabbit
	Skin sensitisation	Sensitizing.	OECD 406	Guinea pig
	NOAEL (oral)	30 mg/kg bw/d	OECD 408	Rat
	Genotoxicity - in vitro	Genotoxic	OECD 473	
	Genotoxicity - in vivo	250 mg/kg bw/d	OECD 474	Mouse
	NOAEL (development, oral)	Not teratogenic		
	NOAEL (fertility, oral)	24 mg/kg bw/d		Rat
LD50 (dermal)	4115 mg/kg bw		Rat	

**11.2. Information on other hazards**

- Endocrine disrupting properties : Not applicable.
- Other information : Not applicable.

**SECTION 12 ECOLOGICAL INFORMATION**

**12.1. Toxicity**

No ecotoxicological research has been carried out on this product.

- Ecotoxicity : Calculated LC50 (fish): 3488 mg/l. Calculated EC50 (waterflea): 4698 mg/l. Contains 0 % of components with unknown hazards to the aquatic environment. Not classified - based on available data, the classification criteria are not met.

**12.2. Persistence and degradability**

Persistence – degradability : No specific information known.

### 12.3. Bioaccumulative potential

Bioaccumulative potential : No specific information known.

### 12.4. Mobility in soil

Mobility : If product enters soil, it will be highly mobile and may contaminate groundwater.

### 12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

### 12.6. Endocrine disrupting properties

Endocrine disrupting properties : Not applicable.

### 12.7. Other adverse effects

Other adverse effects : Not applicable.

## SECTION 13 DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Product residues : Do not dispose empty pack with waste produced by households. Containers should be recycled or re-used. Treat product residues and non-empty pack as chemical waste. Dispose waste to an official chemical waste depot.

Additional warning : None.

Waste water discharge : Do not dispose into the environment, in drains or in water courses. Avoid discharge of waste water arising from tank cleaning to the environment.

Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

## SECTION 14 TRANSPORT INFORMATION

### 14.1. UN number or ID number

UN nr. : None.

### 14.2. UN proper shipping name

Transport name : Not regulated.

### 14.3/14.4/14.5. Transport hazard class(es)/Packing group/Environmental hazards

ADR/RID/ADN (road/railway/inland waterways)

Class : This product is not classified according to ADR/RID/ADN.

IMDG (sea)

Class : This product is not classified according to IMDG.

Marine pollutant : No

IATA (air)

Class : This product is not classified according to IATA.

### 14.6. Special precautions for user

Other information : Country specific variations may apply.

### 14.7. Maritime transport in bulk according to IMO instruments

Marpol : Not intended to be carried in bulk according to International Maritime Organisation (IMO) instruments. Packaged liquids are not considered bulk.

**SECTION 15 REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Community regulations : Regulation (EU) No 2020/878 (REACH), Regulation (EC) No 1272/2008 (CLP) and other regulations.

**15.2. Chemical safety assessment**

Chemical safety assessment : Not applicable.

**SECTION 16 OTHER INFORMATION****16.1. Other information**

The information in this safety data sheet is compiled in compliance with Regulation (EU) No 2020/878 dated 18 June 2020 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (\*).

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

ADR	: European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	: Acute Toxicity Estimate
CLP	: Classification, Labeling & Packaging
CMR	: Carcinogenic, Mutagenic or toxic for Reproduction
EEC	: European Economic Community
GHS	: Globally Harmonized System of Classification and Labelling of Chemicals
IATA	: International Air Transport Association
IBC code	: International Bulk Chemical Code
IMDG	: International Maritime Dangerous Goods Code
LD50/LC50	: Lethal Dose/Concentration for 50% of a population
MAC	: Maximum Allowable Concentration
MARPOL	: International Convention for the Prevention of Pollution From Ships
NO(A)EL	: No Observed (Adverse) Effect Level
OECD	: Organisation for Economic Co-operation and Development
PBT	: Persistent, Bioaccumulative and Toxic
PC	: Chemical product category
PT	: Product type
REACH	: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	: Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	: Sewage Treatment Plant
SU	: Sector of Use
TWA/STEL	: Time-Weighted Average/Short Term Exposure Limit
UN	: United Nations
UFI	: Unique formula identifier
VOC	: Volatile Organic Compounds
vPvB	: Very Persistent and Very Bioaccumulative

Key data used to compile the Safety Data Sheet are from, but not limited to, one or more sources of information e.g. toxicological data from material suppliers, CONCAWE, IFRA, CESIO, Regulation EG 1272/2008, etc.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008:

Not classified : Based on test methods, experts judgement, bridging principles and calculation methods.

Full text of hazard classes mentioned in section 3:

Acute Tox. 4 : Acute toxicity, category 4.  
Skin Irrit. 2 : Skin irritation, category 2.  
Eye Dam. 1 : Serious eye damage, category 1.  
Skin Sens. 1/1A/1B : Skin sensitization, category 1/1A/1B.  
Aquatic Acute 1 : Hazardous to the aquatic environment — Acute category 1.

Full text of H-phrases mentioned in section 3:

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H400 Very toxic to aquatic life.

Advice on any training appropriate for workers: none.

Number format : "," used as decimal separator.

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End of safety data sheet.