

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

1.1. Product identifier

Product name : STAR BRITE MARINE DESCALING FLUID CONCENTRATE
Product code : 839XX

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

Application : Cleaning agent. Descaling products.

1.3. Details of the supplier of the safety data sheet

Supplier : Star Brite
4041 SW 47th Avenue
33314 Fort Lauderdale, Florida, United States of America
Telephone : +1-954 587-6280
E-mail : info@starbrite.com
Website : http://www.starbrite.com

1.4. Emergency telephone number

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:
US - Telephone : +1-703-527-3887 (During office hours only)
EMERGENCY TELEPHONE NUMBER (for DOCTORS only):
Chemtrec 001 703 5273887 (24/7)

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

GHS Classification (HCS : Corrosive to metals, category 1. Skin corrosive, category 1B. Serious eye damage, category 1. §1910.1200)

2.2. Label elements

Label elements (1910.1200)
Hazard pictograms :



Signal word : Danger

H- and P-phrases	:	H290	May be corrosive to metals.
		H314	Causes severe skin burns and eye damage.
		P264	Wash hands thoroughly after handling.
		P234	Keep only in original container.
		P280	Wear protective gloves/protective clothing/eye protection/face protection.
		P301+P330	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
		+P331	
		P303+P361	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with
		+P353	water/shower.
		P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,
+P338	if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P321 sds	Specific treatment (see section 4 on the SDS).
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P406	Store in corrosive resistant/... container with a resistant inner liner.
P390	Absorb spillage to prevent material damage.
P501	Dispose of contents/container to an official chemical waste depot.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixtures

Product description : Mixture.

Information on hazardous substances:

Substance name	Concentration (w/w%)	CAS nr.	Additional CAS nr.	Hazards
Phosphoric acid	30 - < 60	7664-38-2	-----	Met. Corr. 1; H290 Skin Corr. 1B; H314 Eye Dam. 1; H318

Occupational exposure limit(s), if relevant, are listed in section 8. The actual concentration has been withheld as a trade secret.

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.
- Skin contact : Immediately take off contaminated clothing. Wash off skin with plenty of water and soap before product dries up. Consult a doctor in case burns or irritation occur.
- Eye contact : Wash out with (lukewarm) water for at least 15 minutes. Remove contact lenses. Transport to a hospital immediately.
- Ingestion : Do not induce vomiting. Rinse the mouth, give 1 glass of water at most. Do not give milk. Never give anything by mouth to an unconscious person. Transport to a hospital immediately.

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

Effects and symptoms

- Inhalation : Corrosive. May cause sore throat and coughing. May cause shortness of breath or lack of breath.
- Skin contact : Corrosive. May cause redness, pain and severe burns (blisters).
- Eye contact : Corrosive. May cause redness and severe pain. Tears.
- Ingestion : Corrosive. May cause burning pain in throat and mouth. May cause a feeling of sickness, stomachache, 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 : Use of heavy stream of water may spread fire.

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. Note that extinguishing water can be corrosive.
NFPA hazard rating :



- Other information : Collect contaminated fire extinguishing water separately. Avoid release of product into sewers, surface water and/or ground water.

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. Avoid contact with spilled or released material.

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. Large scale discharge causing a very low pH may impair the biological system in sewage plants. Inform the official bodies if necessary.
Other information : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Collect spilled material in containers. Carefully neutralise residues with soda. 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. After contact with skin, wash immediately with plenty of water.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep frost-free, in a cool, dry and well-ventilated place.
 Recommended packaging : Keep only in the original container.
 Non recommended packaging : Steel and aluminium.

7.3. Specific end use(s)

Use : Use only as directed. Do not mix with other products.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits : Occupational exposure limits have not been established for this product.

Workplace exposure limits (mg/m³):

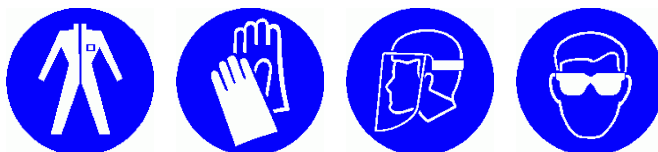
Chemical name	Country	TWA 8 hour (mg/m³)	STEL 15 min (mg/m³)	Comments	Source
Phosphoric acid	US	1	3	-	ACGIH
Phosphoric acid	US	1	3	-	NIOSH

8.2. Exposure controls

Engineering measures : 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 : Wear appropriate protective clothing, overalls or suit, and similar boots. Suitable material: neoprene. Indication of permeation breakthrough time: 6 hours.
 Respiratory protection : Take care of sufficient ventilation.
 Hand protection : Wear appropriate safety gloves. Suitable material: neoprene. ± 0,5 mm. Indication of permeation breakthrough time: 6 hours.
 Eye protection : Wear a face shield or appropriate safety glasses with side shields.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state : Liquid.
 Colour : Blue.
 Odour : Characteristic.
 Odour threshold : Not known.
 pH : < 2
 Acid reserve (g NaOH/100 ml) : 16,20

Solubility in water	: Soluble.	
Partition coefficient (n-octanol/water)	: Not known.	Not measured. Not relevant for mixtures.
Flash point	: > 100 °C	Closed Cup (ISO 2719, EN 11, DIN 51758, ASTM D 93).
Flammability (solid, gas)	: Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	: > 399 °C	
Boiling point/boiling range	: 100 °C	
Freezing point	: 0 °C	
Explosion limits (% in air)	: Not known.	
Oxidising properties	: Not applicable.	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)	: 1,21 g/ml	
Evaporation rate	: Not known.	(n-butyl acetate = 1)

SECTION 10 STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity : See sub-sections below.

10.2. Chemical stability

Stability : Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactivity : Reacts vigorously in contact with alkalines. Strong heat development possible. Reacts with metals.

10.4. Conditions to avoid

Conditions to avoid : See section 7.

10.5. Incompatible materials

Materials to avoid : Keep away from bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Not known.

SECTION 11 TOXICOLOGICAL INFORMATION

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. |
| Corrosion/irritation | : Corrosive. May cause sore throat and coughing. May cause pulmonary oedema. Symptoms of pulmonary oedema often manifest after several hours. |

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. Does not contain carcinogenic substances.
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: > 5000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
Corrosion/irritation	: Corrosive. Causes severe burns.
Sensitisation	: Does not contain skin sensitisers. 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.
Eye contact	
Corrosion/irritation	: Corrosive. Risk of serious damage to eyes.
Ingestion	
Acute toxicity	: Calculated LD50: > 4554 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. 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	: Corrosive. May cause burning pain in throat and mouth. May cause a feeling of sickness, stomachache, 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.

11.2. Information on other hazards

Other information	: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens. No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
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SECTION 12 ECOLOGICAL INFORMATION

12.1. Toxicity

No ecotoxicological research has been carried out on this product.

Ecotoxicity	: Calculated LC50 (fish): 2498025 mg/l. Calculated EC50 (waterflea): 297 mg/l. Contains 0 % of components with unknown hazards to the aquatic environment.
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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.

12.7. 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 may be recycled. Treat product residues and non-empty pack as hazardous waste.

Additional warning : None.

Waste water discharge : Do not dispose of into the environment, drains, sewers or water courses.

EPA RCRA code : D0002

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. : UN 1805

14.2. UN proper shipping name

Transport name : PHOSPHORIC ACID, SOLUTION

Transport name (IMDG, IATA) : PHOSPHORIC ACID, SOLUTION

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

DOT (land)

Class : 8

Classification code : C1

Packaging group : III

Danger label : 8

ERG number :



Other information : Not intended for carriage by tank-vessels on inland waterways. This product is exempted from labeling, specification packaging, shipping paper, and placarding requirements when shipped in inner packagings not over 5L, each package in strong outer packaging under 30 kg, unless shipped by aircraft or vessel.

IMDG (sea)

Class : 8

Packaging group : III

EmS (fire / spill) : F - A / S - B

Marine pollutant : No



IATA (air)
Class : 8
ERG code :

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

Regulations : OSHA HazCom 2012, 29 CFR 1910.1200 and other Regulations.

United States TSCA (Toxic Substances Control Act) inventory
: All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

US State Regulation
California : This product does not contain any chemicals known to the State of California to cause cancer, birth, or
Proposition 65 : any other reproductive effects.

SECTION 16 OTHER INFORMATION

16.1. Other information

The information in this safety data sheet is compiled in compliance with Hazcom 1910.1200. 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:

ATE	: Acute Toxicity Estimate
CMR	: Carcinogenic, Mutagenic or toxic for Reproduction
DOT	: Department of Transportation
DSL	: Domestic Substances List
GHS	: Globally Harmonized System of Classification and Labelling of Chemicals
HPA	: Hazardous Products Act
HPR	: Hazardous Products Regulations
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
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
OSHA	: United States Occupational Safety and Health Administration
PBT	: Persistent, Bioaccumulative and Toxic
REACH	: Registration, Evaluation, Authorisation and Restriction of Chemicals



SAFETY DATA SHEET

According to OSHA HazCom 2012, 29 CFR 1910.1200

RID	: Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	: Sewage Treatment Plant
TWA/STEL	: Time-Weighted Average/Short Term Exposure Limit
UN	: United Nations
VOC	: Volatile Organic Compounds
vPvB	: Very Persistent and Very Bioaccumulative
WHMIS	: Workplace Hazardous Materials Information System

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. Also used: OSHA HazCom 2012, 29 CFR 1910.1200.

Full text of H-phrases mentioned in section 3:

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Advice on any training appropriate for workers: none.

Number format : ", " used as decimal separator.

Date of preparation or latest revision : 2023-02-02

End of safety data sheet.