

BIO-SOFT® S-118

Version
1.1Revision Date:
07/01/2024Date of last issue: 10/05/2023
Date of first issue: 10/05/2023

SECTION 1. IDENTIFICATION

Product name : BIO-SOFT® S-118

Product code : 1060325

Manufacturer or supplier's details

Company name of supplier : STEPAN US

Address : 1101 Skokie Blvd, Suite 500
Northbrook IL 60062

Telephone : (847) 446-7500

Emergency telephone	Medical	1-800-228-5635 (Available 24 hours a day. SDS/Product information may not be available for the emergency service.)
	Chemtrec	1-800-424-9300
	Chemtrec Int'l	1-703-527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Surfactant

Restrictions on use : For industrial use only.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity (Oral) : Category 4

Skin corrosion : Category 1B

Serious eye damage : Category 1

Short-term (acute) aquatic hazard : Category 2

Long-term (chronic) aquatic hazard : Category 3

GHS label elements

Hazard pictograms :



Signal Word : Danger

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- Hazard Statements : H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.
- Precautionary Statements : **Prevention:**
P261 Avoid breathing mist or vapors.
P264 Wash 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.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Response:**
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P363 Wash contaminated clothing before reuse.
- Storage:**
P405 Store locked up.
- Disposal:**
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Components**

Chemical name	CAS-No.	Concentration (% w/w)
Benzenesulfonic acid, C10-16-alkyl derivs.	68584-22-5	90 - 100
sulphuric acid	7664-93-9	< 3
Benzene, mono-C10-13-alkyl derivs.	129813-58-7	< 3

CAS numbers 27176-87-0 and 85536-14-7 may be used as an alternate CAS to 68584-22-5.

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SECTION 4. FIRST AID MEASURES

- General advice : If you feel unwell, seek medical advice (show the label where possible).
Show this material safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Wash contaminated clothing before reuse.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Continue rinsing.
Get medical attention immediately.
- If swallowed : Rinse mouth.
If swallowed, call a poison control center or doctor immediately.
Do NOT induce vomiting.
If a person vomits when lying on his back, place him in the recovery position.
- Most important symptoms and effects, both acute and delayed : Harmful if swallowed or if inhaled.
Causes serious eye damage.
Harmful if swallowed or if inhaled.
Causes serious eye damage.
Causes severe burns.
- Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide, dry powder, foam.
Fog
- Unsuitable extinguishing media : Water
- Specific hazards during fire fighting : Exposure to decomposition products may be a hazard to health.
- Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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Special protective equipment : Wear self-contained breathing apparatus for firefighting if
for fire-fighters necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Ensure adequate ventilation.
Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.
Prevent spreading over a wide area (e.g., by containment or oil barriers).
Only qualified personnel equipped with suitable protective equipment may intervene.

Environmental precautions : Should not be released into the environment.
Local authorities should be advised if significant spillages cannot be contained.
Do not allow contact with soil, surface or ground water.
Do not discharge large quantities of concentrated spills or residues into surface water or sanitary sewer system.
Do not contaminate water.
Prevent further leakage or spillage if safe to do so.

Methods and materials for containment and cleaning up : Dam up.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Collect as much of the spill as possible with a suitable absorbent material.
Keep in suitable, closed containers for disposal.
Flush with water.

SECTION 7. HANDLING AND STORAGE

Technical measures : Ensure that eyewash stations and safety showers are close to the workstation location.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : For personal protection see section 8.
Wear personal protective equipment.
Do not get in eyes or mouth or on skin.
Do not swallow.
Handle and open container with care.
Do not breathe dust, fume, gas, mist, vapors or spray.
Do not eat, drink or smoke when using this product.

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Keep container closed when not in use.

Conditions for safe storage : Store in original container.
Keep container closed when not in use.
Store locked up.

Materials to avoid : Store away from incompatible materials (see Section 10 of the SDS).

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
sulphuric acid	7664-93-9	TWA (Thoracic particulate matter)	0.2 mg/m ³	ACGIH
		TWA	1 mg/m ³	NIOSH REL
		TWA	1 mg/m ³	OSHA Z-1
		TWA	1 mg/m ³	OSHA P0
sulphuric acid	7664-93-9	TWA (Thoracic particulate matter)	0.2 mg/m ³	ACGIH
		TWA	1 mg/m ³	NIOSH REL
		TWA	1 mg/m ³	OSHA Z-1
		TWA	1 mg/m ³	OSHA P0
sulphuric acid	7664-93-9	TWA (Thoracic particulate matter)	0.2 mg/m ³	ACGIH
		TWA	1 mg/m ³	NIOSH REL
		TWA	1 mg/m ³	OSHA Z-1
		TWA	1 mg/m ³	OSHA P0

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Remarks : Protective gloves Preventive skin protection The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Wear safety glasses with side shields or goggles.
Face-shield

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

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Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : viscous
liquid

Color : dark amber

Melting point/freezing point : -0.00 °F / -17.78 °C

Pour point : -5.01 °F / -20.56 °C

Flash point : Method: Cleveland open cup
Not applicable

Density : 1.02 g/cm3

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable under recommended storage conditions.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Stable under recommended storage conditions.
No hazards to be specially mentioned.

Conditions to avoid : Contact with incompatible materials.

Incompatible materials : Strong alkaline materials (e.g., hydrated lime) [Note: Corrosive to metals.]
Reducing agents
Bases

Hazardous decomposition products : Sulfur compounds

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Harmful if swallowed.

Product:

Acute oral toxicity : LD50 (Rat): 1,350 - 1,600 mg/kg
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

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Assessment: The component/mixture is minimally toxic after single contact with skin.

Skin corrosion/irritation

Causes severe burns.

Product:

Assessment : Category 1B

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Assessment : Corrosive

Respiratory or skin sensitization**Skin sensitization**

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Assessment : Does not cause skin sensitization.

Assessment : Does not cause respiratory sensitization.

Germ cell mutagenicity

Not classified based on available information.

Product:

Germ cell mutagenicity - Assessment : Contains no ingredient listed as a mutagen

Carcinogenicity

Not classified based on available information.

Product:

Remarks : Not classified

Carcinogenicity - Assessment : The International Agency for Research on Cancer (IARC) has concluded that occupational exposure to strong-inorganic acid mists containing sulfuric acid is carcinogenic to humans.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

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NTP Known to be human carcinogen
sulphuric acid 7664-93-9

Reproductive toxicity

Not classified based on available information.

Product:

Reproductive toxicity - Assessment : No toxicity to reproduction

STOT-single exposure

Not classified based on available information.

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

Not classified based on available information.

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:****Ecotoxicology Assessment**

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Persistence and degradability**Product:**

Biodegradability : Result: Readily biodegradable.

Bioaccumulative potential

No data available

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Mobility in soil

No data available

Other adverse effects**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of contents/ container to an approved waste disposal plant.
The hazard and precautionary statements displayed on the label also apply to any residues left in the container. Uncontrolled disposal or recycling of this packaging is not permitted and can be dangerous.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

UN number : UN 3265
Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(Alkylbenzene Sulfonic Acid, Sulfuric Acid)

Class : 8
Packing group : II
Labels : 8

IATA-DGR

UN/ID No. : UN 3265
Proper shipping name : Corrosive liquid, acidic, organic, n.o.s.
(Alkylbenzene Sulfonic Acid, Sulfuric Acid)

Class : 8
Packing group : II
Labels : Corrosives
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851

IMDG-Code

UN number : UN 3265
Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

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(Alkylbenzene Sulfonic Acid, Sulfuric Acid)
Class : 8
Packing group : II
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**49 CFR**

UN/ID/NA number : UN 3265
Proper shipping name : Corrosive liquid, acidic, organic, n.o.s.
(Alkylbenzene Sulfonic Acid, Sulfuric Acid)
Class : 8
Packing group : II
Labels : CORROSIVE
ERG Code : 153
Marine pollutant : no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sulphuric acid	7664-93-9	1000	50000

SARA 304 Extremely Hazardous Substances Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Components	CAS-No.	Component TPQ (lbs)
sulphuric acid	7664-93-9	1000

SARA 311/312 Hazards : Acute toxicity (any route of exposure)
Serious eye damage or eye irritation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

sulphuric acid	7664-93-9	>= 1 - < 5 %
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The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

sulphuric acid	7664-93-9	>= 1 - < 5 %
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This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

California Prop. 65

WARNING: This product can expose you to chemicals including 1,4-dioxane, Strong Inorganic Mists Containing Sulfuric Acid, which is/are known to the State of California to cause cancer, and sulphur dioxide, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

sulphuric acid	7664-93-9
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California Permissible Exposure Limits for Chemical Contaminants

sulphuric acid	7664-93-9
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The ingredients of this product are reported in the following inventories:

TSCA	: On the inventory, or in compliance with the inventory
AIIC	: On the inventory, or in compliance with the inventory
DSL	: On the inventory, or in compliance with the inventory
IECSC	: All components are listed on the inventory, regulatory obligations/restrictions apply
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
TCSI	: On the inventory, or in compliance with the inventory

TSCA list

No substances are subject to TSCA 12(b) export notification requirements.

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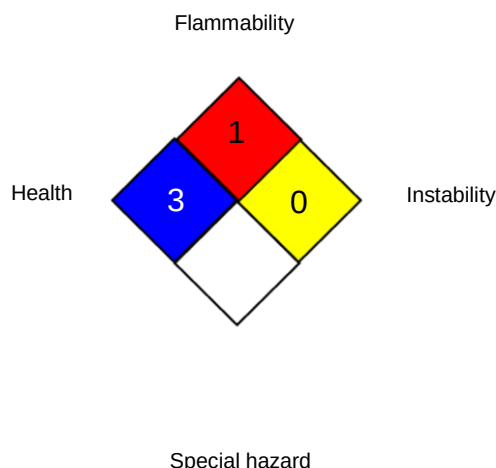
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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	/	3
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Pre-

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