Safety data sheet

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

1.1 Product identifier

Trade name: Extraction Buffer
Part number: EB17(11198, 12382)

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

Laboratory chemicals; kit component. Not to be used for purposes other than those specified in product literature.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: EnviroLogix Inc., 500 Riverside Industrial Pkwy.
Portland ME 04103, USA

Information department: Technical Service

1.4 Emergency telephone number: (207) 797-0300

SECTION 2. Hazards identification.

2.1 Classification of the substance or mixture

Classification according to OSHA 29CFR 1910.1200 and Regulation EC 1272/2008 (CLP):

Flammable Solid category 2	H228	Flammable solid
Acute Toxicity Oral 4	H302	Harmful if swallowed
Acute Toxicity Inhalation 4	H322	Harmful if inhaled
Skin Irritation category 2	H315	Causes skin irritation
Serious eye damage category 1	H318	Causes serious eye damage
Specific Target Organ Toxicity Single Exposure category 3	H335	May cause respiratory irritation
Aquatic Toxicity-Chronic category 3	H412	Harmful to the environment with long lasting effects

2.2 Label elements

Labeling according to OSHA 29CFR 1910.1200 and Regulation (EC) 1272/2008

Hazard pictograms :

Signal word: Danger

Hazard statements:

H228	Flammable solid.
H302 + H322	Harmful if swallowed or inhaled
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/ eye protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.
P304 + P340	IF INHALED: Remove to fresh air and keep comfortable for breathing.
P305 + P351 + P338	If in Eyes: Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do. Continue rinsing.
P403 + P233	Store in a well ventilated place. Keep container tightly closed

2.3 Other hazards: No additional hazards listed

SECTION 3. Composition/information on ingredients.

3.1 Substances: Information not relevant

32 Mixtures: Extraction Reagent Powder (EB17)

Chemical name	CAS No	EC No	Amount (%)	Classification OSHA 29CFR1910.1200
Sodium Lauryl Sulfate	151-21-3	205-788-1	60 to 85	Flam. Sol. 2 H228; Acute Tox. Oral 4 H302; Acute Tox. Inhal. 4 H322; Skin Irrit. 2 H315; Eye Dam. 1 H318; STOT SE 3 Resp. H335; Aquatic Tox. Chronic 3 H412;
Benzenesulfonic Acid, 4 C10 –C13 sec-Alkyl Derivatives	85536-14-7	287-494-3	1.5 to 2	Acute Tox. 4 H302; Skin Corr. 1C H314; Aquatic Tox. Chronic 3 H412

SECTION 4. First aid measures.

4.1 Description of first aid measures

After inhalation …… If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

After skin contact …… Flush skin with water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse.

After eye contact …… Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation develops.

After swallowing …… Do NOT induce vomiting unless directed to do so by medical personnel. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Difficulty breathing, Skin irritation, Eye irritation
Do NOT induce vomiting unless directed to do so by medical personnel. If large quantities of this material are swallowed, call a physician immediately.

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

No special treatment is required

SECTION 5. Firefighting measures.

5.1 Extinguishing media

Suitable extinguishing agents: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

5.2 Special hazards arising from the substance or mixture :

When heated to decomposition it emits toxic fumes of sulfur oxides, and sodium oxide.

5.3 Advice for firefighters

Protective equipment: Wear appropriate PPE for fire conditions including self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers.

SECTION 6. Accidental release measures.

6.1 Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Assure adequate ventilation. Remove all sources of ignition. Evacuate personnel to a safe area. Avoid breathing dust.

6.2 Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and material for containment and clean up: Sweep up and shovel. Prevent entry into sewers, dike if needed. Eliminate all ignition sources. Call for assistance on disposal.
Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

6.4 Reference to other sections: For safe handling refer to Section 7. For information on PPE refer to Section 8. For disposal, refer to Section 13.

SECTION 7. Handling and storage.

7.1 Precautions for safe handling: Keep away from heat. Keep away from sources of ignition. Prevent electrostatic buildup. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities: Keep away from incompatibles such as oxidizing agents.
Keep container tightly closed. Keep container in a cool, well-ventilated area.

7.3 Specific end use(s): Besides the uses described in Section 1.2 there are no other specific uses

SECTION 8. Exposure controls/personal protection.

8.1 Exposure controls

Additional information about design of technical systems: None required

Exposure limits

Components with limit values that require monitoring at the workplace:

Chemical	Exposure Limits
Sodium Lauryl Sulfate	**OSHA** Observe limits for particulate not otherwise regulated: 15 mg/m3 total dust, 5 mg/m^3 respirable fraction (OSHA PEL) 10 mg/ m^3 inhalable particulate, 3 mg/m^3 respirable particulate. (ACGIH TLV) **EH40/2005** Inhalable dust: 10mg/m^3; Respirable dust: 4mg/m^3

Exposure controls - Engineering Controls: Facilities using or storing this material should be equipped with an eyewash and safety shower. Provide local exhaust or general dilution ventilation.

Personal protective equipment

Breathing equipment…… Appropriate respiratory protection should be determined according to local conditions using risk analysis protocols. An approved disposable air-purifying particulate respirator may be used as a backup to engineering controls. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protection of hands…….. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

	The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Eye protection……..	Safety glasses with side shields; goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Eye and face protection regulations are described by OSHA (US) in 29 CFR 1910.133. Do not wear contact lenses when working with chemicals.

SECTION 9. Physical and chemical properties.

9.1 Information on basic physical and chemical properties	**Extraction Reagent Powder (EB17)– no CAS number**
Appearance:	Solid –Powder, White
Odor:	Odorless
Odor threshold:	not applicable
pH :	9.5 (1% sol/water)
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability(solid, gas):	May be combustible at high temperature
Upper/lower flammability or explosive limits:	No data available
Vapor pressure	No data available
Vapor density:	No data available
Relative density	No data available
Solubility(ies):	Soluble in water
Partition coefficient: n-octanol/water;	No data available
Auto-Ignition Temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing Properties	Not applicable
9.2 Other information	None

SECTION 10. Stability and reactivity.

10.1 Reactivity:	Not self-reactive.
10.2 Chemical stability	Stable under normal temperatures and pressures
10.3 Possibility of hazardous reactions :	Reaction with strong oxidizers may cause fire.
10.4 Conditions to avoid :	Heat, flames, and sparks
10.5 Incompatible materials:	Oxidizing agents (eg bleach).
10.6 Hazardous decomposition products:	Carbon monoxide, carbon dioxide, sulfur oxides, carbon dioxide, nitrogen oxides, silicone Oxides.

SECTION 11. Toxicological information.

Acute effects (toxicity tests):

Sodium lauryl sulfate - 151-21-3		
Acute oral toxicity	LD50= 1200 mg/kg	rat
Acute dermal toxicity	LD50= > 2000 mg/kg	rabbit
Acute inhalation toxicity	LC50= 3900 mg/m3, 1hour	rat

Sensitization: No sensitizing effects known

Additional toxicological information: CMR (carcinogenicity, mutagenicity and toxicity for reproduction) – no CMR effects.

SECTION 12. Ecological information.

12.1 Toxicity: Sodium Lauryl Sulfate
Aquatic toxicity: Note: Aquatic Toxicity of mixture is based on Sodium Lauryl Sulfate;

Aquatic toxicity LC50	**Effect dose**	**Exposure**	**Species**
Acute fish toxicity	10.2-22.8 mg/l	96 hours	Pimephales promelas
Acute daphnia toxicity	1.8 mg/l	48 hours	daphnia magna
Acute algae toxicity	117 mg/l	96 hours	Pseudokirchneriella subcapitata
	53 mg/l	96 hours	Desmodesmus subspicatus
	30-100 mg/l	96 hours	Desmodesmus subspicatus

12.2 Persistence and degradability : Biodegradability Result: 90 % - Readily biodegradable. Ratio BOD/ThBOD 95.9 %

12.3 Bio accumulative potential : Cyprinus carpio (Carp) - 72 h Bioconcentration factor (BCF): 3.9 - 5.3
12.4 Mobility in soil : Not available
12.5 Results of PBT and vPvB assessment: Not available as a chemical safety assessment, not required/not conducted.

12.6 Other adverse effects No others listed.

SECTION 13. Disposal considerations.

Waste treatment methods/ Uncleaned packaging**:** Dispose of contents and containers in accordance with local, state and federal regulations.

SECTION 14. Transport information.

14.1 UN-Number DOT, ADR, ADN, IMDG, IATA : UN2926
14.2 UN proper shipping name DOT, ADR, ADN, IMDG, IATA : FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (Sodium dodecyl sulfate)
14.3 Transport hazard class(es)
Class (DOT, ADR, ADN, IMDG, IATA): 4.1 (6.1)
14.4Packing group (DOT, ADR, IMDG, IATA): PG111
14.5 Environmental hazards
Marine pollutant: Not applicable.
14.6 Special precautions for user : Not applicable.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15. Regulatory information.

15.1 Safety, health and environmental regulations	
HMIS Classification (US)…….	**NFPA Rating (US) ……**
Health hazard: 2 , Flammability: 1 , Physical Hazards: 0	Health hazard: 2 , Fire: 1 , Reactivity Hazard: 0
US Federal Regulations	
TSCA	TSCA 8(b) inventory: Sodium lauryl sulfate
Health and Safety Reporting List	
CERCLA	Listed.
SARA Section 302 (Extremely Hazardous Substances)	Not listed
Clean Air Act	Not listed
Clean Water Act	Not listed
OSHA	Not listed
European/International Regulations	
European labeling in accordance with EC Directives	This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 205-788-1)
Canada – DSL/NDSL	Listed
Canada – WHMIS	CLASS D-2B: Material causing other toxic effects (TOXIC).
Other	China: Listed on National Inventory. Japan: Listed on National Inventory (ENCS). Korea: Listed on National Inventory (KECI). Philippines: Listed on National Inventory (PICCS). Australia: Listed on AICS.
15.2 Chemical safety assessment	Not carried out.

SECTION 16. Other information.

This information is true based on our present knowledge. However, EnviroLogix makes no representation of its accuracy or completeness. Persons receiving this information must exercise their independent judgment in determining the product's safety and suitability for its intended use. This document shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship
EHS Department
EnviroLogix Inc.

Code Definitions:

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