

**1. Identification**

**Product name:** EMPOWER®  
**Recommended use:** Instrument Cleaner  
**Restrictions on use:** None known  
**Manufacturer:** METREX® RESEARCH  
 28210 Wick Road  
 Romulus, MI., 48174-U.S.A.  
 T 1-800-841-1428 (Customer Service)  
**Emergency number:** (Chemical Spills, Leaks, Fire, Exposure or Accident only):  
 CHEMTREC 1-800-424-9300 (in the US), 1-703-527-3887 (Outside the US)  
**Issue date:** 03/29/2023

**2. Hazard(s) identification**

**Classification:**

Physical hazards	Health hazards
Not classified	Respiratory sensitization, Category 1

**GHS US labeling:**

Danger!



Hazard statements (GHS US)	Precautionary statements (GHS US)
H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled	P261 - Avoid breathing mist, vapors, spray. P284 - [In case of inadequate ventilation] wear respiratory protection. P304+P341 - If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. P342+P311 - If experiencing respiratory symptoms: Call a poison center or doctor. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**3: Composition/Information on ingredients**

Component	CAS-No.	Amount (%)
Non-Hazardous Ingredients	Mixture	99 – 100
Subtilisin	9014-01-1	0.1-<1

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

#### 4. First-aid measures

**Inhalation:** Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.

**Skin:** Gently wash with plenty of soap and water. Wash contaminated clothing before reuse.

**Eyes:** Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion:** Call a poison center or a doctor if you feel unwell.

**Symptoms/effects:** May cause minor eye irritation. May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

**Immediate medical attention and special treatment, if necessary:** Not required.

#### 5. Fire-fighting measures

**Suitable extinguishing media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable extinguishing media:** None.

**Fire hazard:** This product is not classified as flammable or combustible.

**Special protective equipment and precautions for fire-fighters:** Use water spray or fog for cooling exposed containers. Do not allow run-off from firefighting to enter drains or water courses. Use self-contained breathing apparatus and chemically protective clothing. Do not attempt to take action without suitable protective equipment.

#### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** Do not touch or walk on the spilled product. Avoid contact with eyes, skin and clothing. Wear suitable protective clothing. Ventilate area.

**Methods and material for containment and cleaning up:** Stop leak, if possible without risk. Take up liquid spill into absorbent material. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

#### 7. Handling and storage

**Precautions for safe handling:** Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Wash hands with water and soap. Avoid breathing mist, vapors. Ensure adequate ventilation.

**Storage conditions:** Store in dry, well-ventilated area. Keep only in original container.

#### 8. Exposure controls/personal protection

Exposure guidelines:	
Subtilisin	0.00006 mg/m <sup>3</sup> Ceiling ACGIH TLV;
Non-Hazardous Ingredients	None established.

**Appropriate engineering controls:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

**Environmental exposure controls:** Avoid release to the environment.

**Personal protective equipment:**

**Hand protection:** No personal protective equipment required under normal use. In case of repeated or prolonged contact wear gloves. Follow facility requirements on PPE procedures.

**Eye protection:** Not required for normal conditions of use

**Skin and body protection:** Wear suitable protective clothing

**Respiratory protection:** [In case of inadequate ventilation] wear respiratory protection. In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

**9. Physical and chemical properties**

<b>Physical state</b>	: Liquid	<b>Density</b>	: 1.016 g/ml
<b>Color</b>	: Blue	<b>Solubility</b>	: No data available
<b>Odor</b>	: pleasant	<b>Partition coefficient n-octanol/water (Log Pow)</b>	: No data available
<b>Odor threshold</b>	: No data available	<b>Auto-ignition temperature</b>	: No data available
<b>pH</b>	: 7 – 8	<b>Decomposition temperature</b>	: No data available
<b>Melting point</b>	: Not applicable	<b>Viscosity, kinematic</b>	: No data available
<b>Freezing point</b>	: No data available	<b>Viscosity, dynamic</b>	: No data available
<b>Boiling point</b>	: No data available	<b>Explosion limits</b>	: No data available
<b>Flash point</b>	: No data available	<b>Explosive properties</b>	: No data available
<b>Relative evaporation rate (butyl acetate=1)</b>	: No data available	<b>Oxidizing properties</b>	: No data available
<b>Flammability</b>	: Not applicable.		
<b>Vapor pressure</b>	: No data available		
<b>Relative vapor density at 20°C</b>	: No data available		
<b>Relative density</b>	: No data available		

No additional information available

**10. Stability and reactivity**

**Reactivity:** The product is non-reactive under normal conditions of use, storage and transport.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** No dangerous reactions known under normal conditions of use.

**Conditions to avoid:** Keep away from heat and flame.

**Incompatible materials :** Keep away from oxidizers, strong acids and strong bases.

**Hazardous decomposition products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**11. Toxicological information**

**Inhalation:** May cause minor irritation to the respiratory tract and to other mucous membranes. May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin:** Causes mild skin irritation.

**Eyes:** May cause slight irritation.

**Ingestion:** May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Chronic symptoms:** None known.

<b>Carcinogenicity:</b>	Not classified
Subtilisin:	This component is not listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU CLP.
Non-Hazardous Ingredients:	This component is not listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, OSHA or the EU CLP.
<b>Germ cell mutagenicity:</b>	Not classified
<b>Reproductive toxicity:</b>	Not classified
<b>Acute toxicity (oral)</b>	: Not classified
<b>Acute toxicity (dermal)</b>	: Not classified
<b>Acute toxicity (inhalation)</b>	: Not classified

**Numerical measures of toxicity:**

**The following are the toxicity values for the components:**

Subtilisin 1800 mg/kg LD50 oral rat

Non-Hazardous Ingredients No data available

<b>Skin corrosion/irritation</b>	Not classified pH: 7 – 8
<b>Serious eye damage/irritation</b>	Not classified pH: 7 – 8
<b>Respiratory or skin sensitization</b>	May cause an allergy or asthma symptoms or breathing difficulties if inhaled.
<b>STOT-single exposure</b>	Not classified
<b>STOT-repeated exposure</b>	Not classified
<b>Aspiration hazard</b>	Not classified

## 12. Ecological information

**Ecology - general:** The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

<b>EMPOWER®</b>	
LC50 - Fish [1]	> 1000 mg/l Pimephales promelas (Fathead minnow) (OECD 203 method)

**Ecotoxicity:**

Subtilisin 14.6 mg/l Oncorhynchus mykiss (Rainbow trout) LC50 - Fish [1]; 8.2 mg/l Oncorhynchus mykiss (Rainbow trout) LC50 - Fish [2]; 0.306 mg/l Daphnia magna (Water flea) EC50 - Crustacea [1]; 170 µg/l Daphnia magna (Water flea) EC50 - Crustacea [2]; 0.513 mg/l Pseudokirchneriella subcapitata EC50 72h - Algae [1]; 0.324 mg/l Daphnia magna (Water flea) NOEC (chronic); 0.042 mg/l Pimephales promelas (Fathead minnow) NOEC chronic fish

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**Other adverse effects:**

No data available

### 13. Disposal considerations

**Regional legislation (waste):** Dispose of in accordance with applicable federal, state, and local regulations.

**Solution Disposal:** For unused solution, flush thoroughly with large quantities of water into sewage disposal system in accordance with Federal, State, and local regulations. For used solution, the waste solution must be characterized by the generator and disposed of in accordance with Federal, State, and local regulations.

**Container Disposal:** Do not reuse empty container. If available, rinse and offer container for recycling.

### 14. Transport information

**Department of Transportation (DOT)**

Not regulated for transport

**Transport by sea**

Not regulated for transport

**Air transport**

Not regulated for transport

### 15. Regulatory information

**SARA Section 313 - Emission Reporting:** This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

**CERCLA Section 103:**

This product is not subject to reporting under CERCLA. However, many states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

**SARA 302:**

Not applicable

**SARA Section 311/312 Hazard Classes:** Refer to Section 2 for OSHA Hazard Classification.

**California Proposition 65:**

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

**TSCA:** All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

**INTERNATIONAL INVENTORIES**

**Canada DSL:** One or more ingredient(s) are not listed

<b>16. Other information</b>
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**NOTICE**

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