

Safety Data Sheet

ENZYTERGE NO. 400

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 10/13/2008

Revision date: 5/24/2024

SECTION 1: Identification

Identification

Product Name	: ENZYTERGE NO. 400
Product code	: FP0400
CAS-No.	: MIXTURE
Synonyms	: No additional information available
Recommended use	: For use as a soak cleaner for reverse osmosis and ultrafiltration membrane applications
Restrictions on use	: No additional information available

Supplier

Hydrite Chemical Co.
17385 Golf Parkway
Brookfield, WI, 53045
T 262-792-1450

Emergency telephone number

EMERGENCY RESPONSE NUMBERS:

24 Hour Emergency #: (414) 277-1311

CHEMTREC Emergency #: (800) 424-9300

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 1

Respiratory sensitization, Category 1

Hazardous to the aquatic environment – Acute Hazard Category 3

GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: Causes skin irritation
Causes serious eye damage
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Harmful to aquatic life

Precautionary statements (GHS US)

Prevention

: Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash hands, forearms and face thoroughly after handling.
Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.
[In case of inadequate ventilation] wear respiratory protection.

Response : IF ON SKIN: Wash with plenty of water.
IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
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 or doctor.
Specific treatment (see supplemental first aid instruction on the SDS).
If skin irritation occurs: Get medical advice/attention.
If experiencing respiratory symptoms: Call a poison center or doctor.
Take off contaminated clothing and wash it before reuse.

Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Hazards not otherwise classified

Hazards not otherwise classified : Spilled material may cause a slipping hazard.

Unknown acute toxicity (GHS US)

Unknown acute toxicity (GHS US) : 7.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
12.59% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/Information on ingredients

Substances/ Mixtures

Name	Product identifier	%	GHS US classification
SECONDARY ALCOHOL ETHOXYLATE	CAS-No.: 84133-50-6	1 – 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 2, H401
TRIETHANOLAMINE DODECYLBENZENE SULFONATE	CAS-No.: 68584-25-8	1 – 5	Skin Irrit. 2, H315 Eye Dam. 1, H318
PROTEASE ENZYME PROTEIN	CAS-No.: 9014-01-1	1 – 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334 STOT SE 3, H335

Note: Any chemical identity and/or exact percentage not expressly stated is being withheld as a trade secret or is due to batch variation.

SECTION 4: First-aid measures

Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation : If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.
First-aid measures after skin contact : If on skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Do not reuse clothing and shoes until cleaned. Wash with soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

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First-aid measures after eye contact	: If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: If swallowed: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: May cause moderate irritation. Symptoms include: Respiratory irritation. Wheezing. Hoarseness. coughing, sneezes. chest pain. difficulty in breathing. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause sensitization by inhalation.
Symptoms/effects after skin contact	: May cause moderate irritation. Prolonged or repeated contact may be more irritating. Prolonged or repeated exposure may cause: severe skin irritation, redness, dermatitis. drying. Cracking of the skin.
Symptoms/effects after eye contact	: CORROSIVE-CAUSES SEVERE IRRITATION AND BURNS. Symptoms may include: redness, itching, tears. stinging. swelling. burning sensation. pain. corneal damage. Serious damage to eyes. Permanent eye damage. Can cause blindness.
Symptoms/effects after ingestion	: May cause mild to severe irritation. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration into the lungs may occur during ingestion or vomiting, resulting in severe pulmonary injury.
Immediate medical attention and special treatment, if necessary	: Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Following severe exposure patient should be monitored for at least 48 hours.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: DO NOT USE DIRECT WATER STREAM. MAY SPREAD FIRE.

Specific hazards arising from the chemical

Fire hazard	: Material will not burn unless preheated. Heat from fire can generate flammable vapor. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. Fine sprays / mists may be combustible at temperatures below normal flash point. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.
Explosion hazard	: Container may rupture from gas generation in a fire situation.
Hazardous decomposition products	: Toxic fumes may be released. Carbon oxides (CO, CO ₂). Aldehydes. ketones.
Firefighting instructions	: Evacuate personnel to a safe area. Do not enter fire area without proper protective equipment, including respiratory protection. Stay upwind/keep distance from source. Move containers from fire area if it can be done without personal risk. Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures	: Caution - this product can cause the floor to be very slippery.
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Do not exceed the occupational exposure limits (OEL).
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate spillage area.

Environmental precautions

Environmental precautions : Avoid release to the environment. Notify authorities if product enters sewers or public waters.

Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.

Methods for cleaning up : Soak up residue with inert absorbent material. Place in non-leaking containers for immediate disposal. Flush remaining area with plenty of water to remove trace residue and dispose of properly. Avoid direct discharge into drains.

Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid dust or mist formation. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes and clothing. Do NOT taste or swallow.

Handling temperature : minimum feasible temperature

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage conditions : Keep in a cool, well-ventilated place away from heat. Avoid temperatures greater than 70 °F. Product degrades more rapidly with increasing temperature.

Incompatible materials : Keep away from incompatibles. Refer to Section 10 on Incompatible Materials.

Storage temperature : No additional information available

Heat-ignition : Keep away from all sources of ignition. Store away from direct sunlight or other heat sources.

Packaging materials : Keep only in the original container. Do not store in unlabeled or mislabeled containers. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

Control parameters

Component	ACGIH	OSHA
SECONDARY ALCOHOL ETHOXYLATE	No data available	No data available
TRIETHANOLAMINE DODECYLBENZENE SULFONATE	No data available	No data available
PROTEASE ENZYME PROTEIN	0.00006 mg/m ³ Ceiling (Subtilisins)	No data available

Appropriate engineering controls

Appropriate engineering controls : General room ventilation and local exhaust are required. Local exhaust ventilation is recommended when vapors, mists, or dusts can be released. Use explosion-proof ventilation equipment. Maintain adequate ventilation. Avoid creating dust or mist. Do not use in closed or confined spaces. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

Environmental exposure controls : Avoid release to the environment.

Individual protection measures/Personal protective equipment

Personal protective equipment : Wear recommended personal protective equipment. Provide readily accessible eye wash stations and safety showers.

Hand protection	: Protective gloves. Chemical-resistant. Impervious.
Eye protection	: Wear chemical safety goggles while handling this product. Do not wear contact lenses. Wear additional eye protection such as chemical safety goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material.
Skin and body protection	: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use.
Respiratory protection	: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If vapors, mists or spray is present, wear: NIOSH-Approved air-purifying respirator with: Organic vapor cartridge. Dust/mist filter. NIOSH-Approved Supplied Air Respirator (SAR). DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.
Other information	: Food, beverages, and tobacco products should not be carried, stored or consumed where this material is in use. Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking. NOTE: When using this product at the recommended use dilution indicated on the product label, wearing goggles and face shield if splashing of face is possible, chemical resistant, impervious gloves, and protective clothing are acceptable precautionary measures.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Clear. Light yellow.
Odor	: Slight odor.
Odor threshold	: No data available
pH	: 7.7 (as is)
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 200 °F
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.0425 @ 25 °C
Solubility	: Complete.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

SECTION 10: Stability and reactivity

Information on 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	: Hazardous polymerization will not occur under normal conditions.
Conditions to avoid	: Keep away from heat, sparks and flame. Keep out of direct sunlight. May decompose at high temperature. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials : strong oxidizing agents. strong acids. strong bases. strong alkalies.
Hazardous decomposition products : Carbon oxides (CO, CO₂). alcohols. aldehydes. Ethers. ketones. organic acids. irritating vapors.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Numerical measures of toxicity			
Component	Oral LD50	Dermal LD50	Inhalation LC50
SECONDARY ALCOHOL ETHOXYLATE	Rat: 2100 mg/kg	No data available	No data available
TRIETHANOLAMINE DODECYLBENZENE SULFONATE	Rat: 2320 mg/kg	Rabbit: > 4199 mg/kg	No data available
PROTEASE ENZYME PROTEIN	Rat: 3700 mg/kg	No data available	No data available

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitization : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Likely routes of exposure : Skin and eye contact. Ingestion. Inhalation.
Symptoms/effects after inhalation : May cause moderate irritation. Symptoms include: Respiratory irritation. Wheezing. Hoarseness. coughing, sneezes. chest pain. difficulty in breathing. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause sensitization by inhalation.
Symptoms/effects after skin contact : May cause moderate irritation. Prolonged or repeated contact may be more irritating. Prolonged or repeated exposure may cause: severe skin irritation, redness, dermatitis. drying. Cracking of the skin.
Symptoms/effects after eye contact : CORROSIVE-CAUSES SEVERE IRRITATION AND BURNS. Symptoms may include: redness, itching, tears. stinging. swelling. burning sensation. pain. corneal damage. Serious damage to eyes. Permanent eye damage. Can cause blindness.
Symptoms/effects after ingestion : May cause mild to severe irritation. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration into the lungs may occur during ingestion or vomiting, resulting in severe pulmonary injury.
Medical Conditions Aggravated by Exposure : Eye disorders. Skin disorders. Dermatitis. asthma. Respiratory system disorders. Kidney disorders.
Other information : No additional information available

SECTION 12: Ecological information

Toxicity

Ecology - general : Harmful to aquatic life.

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ENZYTERGE NO. 400 (MIXTURE)

LC50 - Fish [1]	64.6 mg/l P. Promelas (fathead minnow)
EC50 - Crustacea [1]	150.3 mg/l C. dubia
NOEC chronic fish	50 mg/l P. Promelas (fathead minnow)
NOEC chronic crustacea	25 mg/l C. dubia

Persistence and degradability

No additional information available

SECTION 13: Disposal considerations

Disposal methods

Waste treatment methods	: Dispose of in accordance with all local, state and federal regulations.
Additional information	: Do not re-use empty containers. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Since emptied containers retain product residue, follow label warnings even after container is emptied. Disposal methods identified are for the product as sold. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permitted under applicable rules, regulations and/or laws governing your location.

SECTION 14: Transport information

Modes of transport

DOT (Department of Transportation):

Identification Number (DOT)	: UN3082
Proper Shipping Name (DOT)	: Environmentally hazardous substances, liquid, n.o.s. (CONTAINS : TRIETHANOLAMINE DODECYLBENZENE SULFONATE)
Hazard Class (DOT)	: 9
Packing group (DOT)	: III
Labels Required (DOT)	: Class 9 (Miscellaneous dangerous materials)



IMDG (International Maritime Dangerous Goods Code):

Identification Number (IMDG)	: UN3082
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : TRIETHANOLAMINE DODECYLBENZENE SULFONATE)
Hazard Class (IMDG)	: 9
Packing group (IMDG)	: III
Labels Required (IMDG)	: Miscellaneous dangerous substances and articles



IATA (International Air Transport Association):

Identification Number (IATA)	: UN3082
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s. (CONTAINS : TRIETHANOLAMINE DODECYLBENZENE SULFONATE)
Hazard Classes (IATA)	: 9
Packing group (IATA)	: III

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Labels Required (IATA)

: Miscellaneous



Environmental hazards

No additional information available

Other transport information

The transportation classifications provided on this SDS are for informational purposes only and based upon the properties of the product as described in this document. The listed transportation classifications may not address variations due to changes in package size, mode of shipment, regional or country regulations, or other regulatory descriptors.

DOT RQ Table

Name	DOT RQ
TRIETHANOLAMINE DODECYLBENZENE SULFONATE	1000 lbs RQ

SECTION 15: Regulatory information

US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

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.

TRIETHANOLAMINE DODECYLBENZENE SULFONATE (68584-25-8)

CERCLA RQ	1000 lb
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US State regulations

No additional information available

SECTION 16: Other information

Hazard Rating System

Health: 2 *
Flammability: 0
Physical: 0

NFPA Rating System

NFPA health hazard: 2
NFPA fire hazard: 0
NFPA reactivity: 0

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Abbreviations and acronyms	
HAP	Hazardous Air Pollutant
VOC	Volatile Organic Compound
STEL	Short Term Exposure Limit
TWA	Total Average Weight
RQ	Reportable Quantity

Revision date: 5/24/2024

Supersedes: 6/7/2023

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Indication of changes: Changes made throughout the SDS.New format.

SDS Prepared by: EP

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which HYDRITE CHEMICAL CO. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.