

SAFETY DATA SHEET

Sustainion® E-28 Grade T Membrane

Version 1

SDS DATE: 10/14/2021

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sustainion® E-28 Grade T Membrane

MANUFACTURER: Dioxide Materials
ADDRESS: 3998 FAU Boulevard #300
City, State, Zip: Boca Raton, FL 33431

EMERGENCY PHONE: (217) 239-1400
TECHNICAL PHONE: (217) 239-1400
E-MAIL: info@dioxidematerials.com

SECTION 2: HAZARDS IDENTIFICATION



PICTOGRAM

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 3), H331
Acute toxicity, Dermal (Category 4), H312
Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318
Short-term (acute) aquatic hazard (Category 3), H402
Long-term (chronic) aquatic hazard (Category 3), H412

GHS Label elements, including precautionary statements:

Pictogram

Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.
H302 + H312 Harmful if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
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.
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.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

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EMERGENCY OVERVIEW:

Stable.

May irritate eyes and/or skin. May be harmful if swallowed and/or inhaled.

To the best of our knowledge, the chemical, physical & toxicological properties have not been thoroughly investigated.

A similar compound, Colestyramine, has been shown to cause constipation when swallowed, and in rare cases intestinal obstruction, or hyperchloremic metabolic acidosis

For additional information on toxicity, please refer to Section 11.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT:</u>	<u>CAS NO.</u>	<u>PERCENT</u>	<u>SARA 313</u>
N-methylpiperidine, compd. with 1-(chloromethyl)-4-ethenylbenzene polymer with diethenylbenzene and ethenylbenzene	2067233-09-2	>80%	N/A
Ethylene Glycol	107-21-1	<10%	Y
N-methylpiperidine	606-68-7-5	<5%	N
Polytetrafluoroethylene	9002-84-0	12%	N

SYNONYMS: PSTMIM-CI

CHEMICAL FORMULA:

SECTION 4: FIRST AID MEASURES

GENERAL ADVICE

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of danderous area.

IN CASE OF EYES CONTACT:

In case of contact with eyes, flush thoroughly with plenty of water for at least 15 mintues. Assure adequated flushing by separating the eyelids with fingers. Call a physician.

IN CASE OF SKIN CONTACT:

In case of skin contact, wash off with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shows. Call a physician.

IF SWALLOWED:

Never give anything by mouth to an unconscious person. If swallowed, rinse mouth with water. Call a physician immediately.

IF INHALED:

If inhaled, remove person into fresh air. If not breathing, give artificial respiration. Consult a physician.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No data available

SECTION 5: FIRE-FIGHTING MEASURES

AUTOIGNITION TEMPERATURE: data not available

NFPA HAZARD CLASSIFICATION:

(estimated) HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0

HMIS HAZARD CLASSIFICATION:

(estimated) HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0

EXTINGUISHING MEDIA:

SUITABLE EXTINGUISHING MEDIA

Water spray. Carbon dioxide, dry chemical powder, or alcohol-resistant foam

FIRE FIGHTING:

SPECIFIC HAZARD(S) ARISING FROM THE SUBSTANCE OR MIXTURE

Carbide oxides, combustible

ADVICE FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes if necessary.

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FURTHER INFORMATION

No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Wear disposable coveralls and discard them after use. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

ENVIRONMENTAL PRECATIONS

Do not let product enter drains.

METHODS AND MATERIAIS FOR CONTAINMENT AND CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

Avoid contact with skin and eyes. Do not breath dust. Provide appropriate exhaust ventilation at places where dust or mist is formed.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510): 10: Combustible liquids

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Hand in accordance with good industrial hygiene and safety practice. Washing hands before breaks and at the end of the workday.

RESPIRATORY PROTECTION:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

SKIN PROTECTION:

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

EYE PROTECTION:

Chemical safety goggles with side-shields conforming to EN 166 use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166 (EU).

WORK HYGIENIC PRACTICES:

Wash contaminated clothing before reuse. Wash thoroughly after handling.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:

Solid

COLOR:

translucent white

FORM:

solid film

ODOR:

no data available

ODOR THRESHOLD

no data available

pH:

no data available

BOILING POINT:

no data available

MELTING POINT:

no data available

FREEZING POINT:

no data available

VAPOR PRESSURE (mmHg):

no data available

VAPOR DENSITY (AIR = 1):

no data available

SPECIFIC GRAVITY (H₂O = 1):

no data available

EVAPORATION RATE:

no data available

SOLUBILITY IN WATER:

Not soluble in water, polymer portion soluble in ethanol, isopropanol

DECOMPOSITION TEMP:

no data available

PARTITION COEFFICIENT:

no data available

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FLASH POINT °F: no data available
FLASH POINT °C: no data available
EXPLOSION PEROPERTIES: no data available
OXIDIZING PROPERTIES: no data available
FLAMMABILITY: no data available
AUTOIGNITION TEMP: no data available
VISCOSITY: no data available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: no data available

CHEMICAL STABILITY: no data available

INCOMPATIBILITY (MATERIAL TO AVOID): strong oxidizing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: no data available

HAZARDOUS POLYMERIZATION: will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

ACUTE TOXICITY: no data available

SKIN CIRROSION/IRRITATION: no data available

SERIOUS EYE IRRITATION/EYE DAMAGE: no data available

INHALATION: no data available

REPRODUCTIVE TOXICITY: no data available

TARGET ORGAN(S) or SYSTEM(S): no data available

RTECS: not available

CARCINOGENITY: no data available. Note 2-methyl-imidazole and 4-methyl imidazole have been shown to lead to increased incidence of lung and liver cancer in rats at doses of 230 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY: no data available

PERSISTENCE AND DEGRADABILITY: no data available

BIOACCUMULATIVE POTENTIAL: no data available

MOBILITY IN SOIL: no data available

OTHER ADVERSE EFFECTS: no data available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state and local environmental regulations.

CONTAMINATED PACKAGING: dispose of as unused product.

SECTION 14: TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: None

NON-HAZARDOUS FOR TRANSPORT: This substance is considered to be nonhazardous for transport.

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WATER TRANSPORTATION

PROPER SHIPPING NAME: None

NON-HAZARDOUS FOR WATER TRANSPORT: This substance is considered to be nonhazardous for water transport.

AIR TRANSPORTATION

PROPER SHIPPING NAME: None

NON-HAZARDOUS FOR AIR TRANSPORT: This substance is considered to be nonhazardous for air transport.

Quantities less than 100 lbs: Quantities 100 lbs or more in a single package:

DOT SHIPPING DESCRIPTION: Not Regulated

DOT HAZARD CLASSIFICATION: Not Regulated

DOT LABELS REQUIRED: None

DOT MARKING REQUIRED: None

UN NUMBER: Not Applicable

SECTION 15: REGULATORY INFORMATION

SARA 302 COMPONENTS

SARA 302: no chemicals in this materials are subject to the reporting requirement of SARA Title III, Section 302.

SARA 313 COMPONENTS

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Ethylene glycol	107-21-1	2007-07-01

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

STATE REGULATIONS:

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Ethylene glycol	107-21-1	2007-07-01

INTERNATIONAL REGULATIONS: no data available

SECTION 16: OTHER INFORMATION

DISCLAIMER: For R&D use only.

SDS CREATION DATE: October 14, 2021