

SAFETY DATA SHEET

Sustainion® X37 polymer

Version 1.15

Revision DATE: 11/16/2017

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name Sustainion® X37 polymer
Synonyms: PSTMIM-Cl
Use of the Substance/Preparation: Casting into ion exchange membrane

Supplier: Dioxide Materials, Inc.
Address: 3998 FAU Boulevard #300
City, State, Zip: Boca Raton, FL 33431
Emergency Phone: (217) 239-1400
Technical Phone: (217) 239-1400
E-Mail Address: info@dioxidematerials.com

Comments: to the best of our knowledge, this Safety Data Sheet conforms to the requirements of EC Directive 1907/2006/EC, Article 31

2 HAZARDS IDENTIFICATION

EUROPEAN DIRECTIVE 67/548/EEC: Not classified

GHS/CLP REGULATION (CE) No. 1272/2008 Not classified

LABEL ELEMENTS: None

OTHER HAZARDS: Non-hazardous in finished form. The product is combustible if exposed to intense heat or fire.

POTENTIAL HEALTH EFFECTS

Eye Contact: May irritate eyes.

Skin Contact: May irritate skin.

Inhalation: May be harmful if inhaled.

Ingestion: May be harmful if swallowed. A similar compound, Colestyramine, has been shown to cause constipation when swallowed, and in rare cases intestinal obstruction, or hyperchloremic metabolic acidosis

Carcinogenic Effects: No information available

Medical Conditions Aggravated by Exposure: None under normal use

Target Organ Statement: No information available

Potential Environmental Effects; No special environmental precautions required.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	EINECS/ELINCS Number	Weight %	EU Classification
1H-Imidazole, 1,2,4,5-tetramethyl-, compd. with 1-(chloromethyl)-4-ethenylbenzene polymer with diethenylbenzene and ethenylbenzene	2067233-09-2	-	>95%	none
1,2,4,5-Tetramethylimidazole	1739-83-9	217-100-7	<5%	N/A

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4 FIRST AID MEASURES

GENERAL ADVICE	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of ganderous area.
EYES:	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.
SKIN:	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.
INGESTION:	Never give anything by mouth to an unconscious person. If swallowed, rinse mouth with water. Call a physician immediately.
INHALATION:	If inhaled, remove person into fresh air. If not breathing, give artificial respiration. Consult a physician.

5 FIRE-FIGHTING MEASURES

AUTOIGNITION TEMPERATURE:	Data not available
RISK OF DUST EXPLOSION:	Negligible
EXTINGUISHING MEDIA:	Water spray. Carbon dioxide, dry chemical powder, or alcohol-resistant foam
SPECIFIC HAZARD(S) ARISING FROM THE SUBSTANCE OR MIXTURE	Hydrogen chloride (HCl) and CO ₂
ADVICE FOR FIREFIGHTERS	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes if necessary.
FURTHER INFORMATION:	No data available

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 METERIALS 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.

7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	No special precautions
HANDLING:	Avoid contact with skin and eyes. Do not breath dust. Provide appropriate exhaust ventilation at places where dust or mist is formed.
STORAGE:	Keep container tightly closed in a dry and well-ventalated place.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS	None
ENGINEERING CONTROLS:	Hand in accordance with good industrial hygiene and safety practice. Washing hands before breaks and at the end of the workday.

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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.

9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Solid polymer
COLOR:	White
FORM:	solid particulate
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, soluble in ethanol, isopropanol.
DECOMPOSITION TEMP:	200 °C
PARTITION COEFFICIENT:	no data available
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

10 STABILITY AND REACTIVITY

REACTIVITY:	None
CHEMICAL STABILITY:	Stable and inert under normal conditions of use
HAZARDOUS POLYMERIZATION:	Will not occur
MECHANICAL SENSITIVITY (SHOCK):	Not sensitive to mechanical impact
CONDITIONS TO AVOID:	Heat, temperature above 200°C
INCOMPATIBILITY (MATERIAL TO AVOID):	strong oxidizing agents.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	Hydrogen chloride (HCl) and CO ₂

11 TOXICOLOGICAL INFORMATION

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ACUTE TOXICITY:

Oral LD ₅₀ :	no data available
Inhalation LC ₅₀ :	no data available
Dermal LD ₅₀	no data available
Eye Irritation:	Dust can cause mechanical irritation to eyes.
Skin Irritation:	no data available
INHALATION:	no data available
REPRODUCTIVE TOXICITY	no data available
TARGET ORGAN(S) or SYSTEM(S):	no data available

CARONIC TOXICITY:

Carcinogenic Effects:	no data available
Reproductive Toxicity:	no data available
Sensitizing Effects:	no data available
Synergistic Materials:	no data available

12 ECOLOGICAL INFORMATION

ECOTOXICITY:	no data available
PERSISTENCE AND DEGRADABILITY:	no data available
BIOACCUMULATIVE POTENTIAL:	no data available
MOBILITY IN SOIL:	no data available
CHEMICAL FATE INFORMATION:	no data available
OTHER ADVERSE EFFECTS:	no data available

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.
EUROPEAN WASTE CATALOGUE CODE:	07.02.14 Non-hazardous substance

14 TRANSPORT INFORMATION

UN NUMBER	Not classified for transport
UN PROPER SHIPPING NAME	Not classified for transport
TRANSPORT HAZARD CLASSES	Not classified for transport
PACKING GROUP	Not classified for transport

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ENVIRONMENTAL HAZARDS	Not classified for transport
SPECIAL PRECAUTIONS FOR USER	Not classified for transport
TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE TRANSPORT IN BULK WATER TRANSPORTATION	Not classified for transport This substance is considered to be non-hazardous for water transport
AIR TRANSPORTATION	This substance is considered to be non-hazardous for air transport.

15 REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

The European Regulation on Chemicals No 1907/2006, Registration, Evaluation, Authorisation of Chemicals (REACH) enacted on June 1st 2007 requires the provision of the Safety Data Sheet for hazardous substances and mixtures/preparations.

DM's Sustainion™ polymer is defined as articles under RWACH and therefore a Safety Data Sheet for this product is not a legal requirement.

In accordance with industry practice and voluntary commitments, DM has decided to continue to provide its customers with the appropriate information for the purpose of assuring safe handling and use of Sustainion™ throughout the product life.

The Safety Data Sheet is in accordance with the EU directives 67/548/EEC, 1999/45/EEC, 1907/2006, 1272/2008 and 453/2010.

CHEMICAL SAFETY ASSESSMENT: N/A

16 OTHER INFORMATION

DISCLAIMER:

For R&D use only. The information on this data sheet represents data available at the time of writing and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified in the technical guidance literature. Any other use of the product, which involves using the product in combination with any other product or any other process, is the responsibility of the user.

SDS CREATION DATE: May 5, 2016

REVISION DATE: 10/16/2017