



Safety Data Sheet

ARMOR Shield® MPI Foam Emitter

1. Identification

Product identifier

Product Name ARMOR SHIELD MPI Foam Emitter / Pads & Shields

Other means of identification

SDS # APPAC-001-MX

Recommended use of the chemical and restrictions on use

Recommended Use Corrosion inhibiting device

Details of the supplier of the safety data sheet

Manufacturer Address

Armor Protective Packaging
1551 North Burkhart Rd
Howell, MI 48855
Phone: 1-517-546-1117
Fax: 1-517-546-6434

Emergency telephone number

Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. Hazard(s) identification

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
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Label elements

Signal word

Warning

Hazard statements

H332 - Harmful if inhaled

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Exclamation mark

Precautionary Statements - Prevention

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P271 - Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

Inhalation

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P312 - Call a POISON CENTER or doctor if you feel unwell

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical Nature

Polymer binder with Volatile Corrosion Inhibitor Additives.

Chemical name	CAS No	Weight-%
Glycerol	56-81-5	<5

4. First-aid measures

Description of first aid measures

Inhalation

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Eye contact

Do not rub eyes. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Skin contact

IF ON SKIN: Wash with plenty of soap and water. If skin irritation persists, call a physician.

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Ingestion Clean mouth with water and drink afterwards plenty of water. Call a physician.

Most important symptoms and effects, both acute and delayed

Symptoms. Can irritate eyes by rubbing eyes while handling Irritation and allergic dermatitis are possible. Harmful if inhaled Can cause irritation to mouth, esophagus and stomach

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Water spray or fog. Foam. Carbon dioxide (CO2). Dry chemical.

Unsuitable extinguishing media Not determined.

Specific hazards arising from the chemical Not determined.

Explosion Data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective actions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required.

Environmental precautions

Environmental precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Keep in suitable, closed containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

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Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Do not breathe dust. Use only outdoors or in a well-ventilated area. Wash face, hands and any exposed skin thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Avoid temperatures over 250°F. Store away from incompatible materials. Material should be kept clear from high risk fire areas and stored in enclosed packaging.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

NOM-010-STPS-2014.

Chemical name	TWA	STEL	Ceiling Limit Value
Glycerol 56-81-5	10 mg/m ³	-	-

Appropriate engineering controls

Engineering controls

Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/face protection

Use safety glasses or chemical splash goggles.

Skin and body protection

Suitable protective clothing. Wear suitable gloves. (butyl, nitrile, PVA are all suitable glove materials).

Respiratory protection

Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid
Appearance	Solid plastic-like article
Color	Not determined
Odor	Ammoniacal

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Odor Threshold Not determined

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	
Melting point / freezing point	No data available	
Boiling point / boiling range	No data available	
Flash point	157 °C / 314.6 °F	
Evaporation Rate	Negligible	
Flammability (Solid, Gas)	No data available	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor Pressure	Negligible	
Vapor Density	No data available	
Relative Density	No data available	
Water Solubility	No data available	
Solubility in other solvents	No data available	
Partition Coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Kinematic viscosity	No data available	
Dynamic Viscosity	No data available	
<u>Other information</u>		
Oxidizing properties	No data available	
Explosive properties	No data available	
Molecular weight	No data available	
Liquid Density	No data available	
Bulk density	No data available	

10. Stability and reactivity

Reactivity	Not reactive under normal conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to Avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

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11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled.
Eye contact	Avoid contact with eyes.
Skin contact	Avoid contact with skin.
Ingestion	Do not ingest.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

Oral LD50	29,704.00 mg/kg
ATEmix (inhalation-dust/mist)	2.22 mg/l

Unknown acute toxicity 80.22 % of the mixture consists of ingredient(s) of unknown toxicity
80.22 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
80.22 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
80.22 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
80.22 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
80.22 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

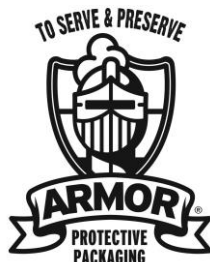
Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium benzoate 532-32-1	= 4070 mg/kg (Rat)	-	-
Glycerol 56-81-5	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m ³ (Rat) 1 h
Benzotriazole 95-14-7	= 560 mg/kg (Rat)	> 1 g/kg (Rat) > 10000 mg/kg (Rabbit)	= 1910 mg/m ³ (Rat) 3 h
Sodium tolyltriazole 64665-57-2	= 1980 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Interactive effects Not classified.

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Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Not classified.

Respiratory or skin sensitization Not classified.

Germ cell mutagenicity Not classified.

Carcinogenicity Group 3 IARC components are "not classifiable as human carcinogens".

Chemical name	ACGIH	IARC	NTP	Mexico
Polyurethane 9009-54-5	-	Group 3	-	-

Legend

IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity Not classified.

STOT - single exposure Not classified.

STOT - repeated exposure Not classified.

Aspiration hazard Not classified.

Other information Not classified.

12. Ecological information

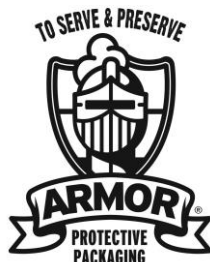
Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium benzoate 532-32-1	-	420 - 558: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static	-	650: 48 h Daphnia magna mg/L EC50
Glycerol 56-81-5	-	51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static	-	500: 24 h Daphnia magna mg/L EC50

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Benzotriazole 95-14-7	15.4: 96 h freshwater algae mg/L EC50	39: 96 h Oncorhynchus mykiss mg/L LC50	-	141.6: 48 h water flea mg/L EC50
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Persistence/Degradability No data available.

Bioaccumulation No data available.

Component Information

Chemical name	Partition coefficient
Glycerol 56-81-5	-1.76

Other Adverse Effects No data available.

13. Disposal considerations

Waste Treatment Methods

Waste from residues/unused products Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

Contaminated packaging Do not reuse empty containers.

14. Transport information

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances

MEX Not regulated

TDG Not regulated

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. Regulatory information

REGULATORY INFORMATION

International Regulations

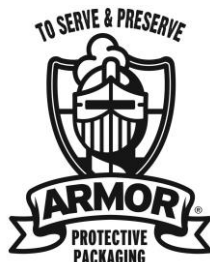
The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

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The Rotterdam Convention Not applicable

International Inventories

Chemical name	TSCA	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Fatty Acids C8-C10 compounded with Diethyl ethanolamine			X					
Sodium benzoate	X	X	X	X	X	X	X	X
Glycerol	X	X	X	X	X	X	X	X
Benzotriazole	X	X	X	X	X	X	X	X
Sodium tolyltriazole	X	X	X		X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. Other information

NFPA	Health hazards 2	Flammability 1	Instability Not determined	Physical and chemical properties Not determined
HMIS	Health hazards 2	Flammability 1	Physical hazards Not determined	Personal protection Not determined

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average)
Ceiling Maximum limit value

STEL
*

STEL (Short Term Exposure Limit)
Skin designation

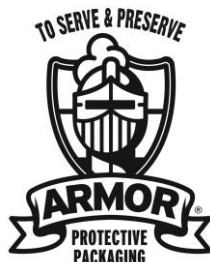
Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

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U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Issue Date: 24-Oct-2014

Revision Date: 22-Mar-2019

Revision Note: New format.

NOM-018-STPS-2015

The information is believed to be accurate, but it is not exhaustive and must be used only as guidance. It is based on the current state of knowledge of the chemical substance or mixture and is applicable to the appropriate safety precautions for the product.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

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