

## Safety Data Sheet

### ARMOR Shield® MPI Foam Emitter

#### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1. Product Identifier

SDS # APPAC-001-EU  
Product Name ARMOR SHIELD MPI Foam Emitter / Pads & Shields

Contains Glycerol

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Corrosion inhibiting device

##### 1.3. Details of the Supplier of the Safety Data Sheet

###### Supplier

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

###### For further information, please contact

Contact Point Phone: 1-517-546-1117  
Fax: 1-517-546-6434  
Email Address [wmeasel@armorvci.com](mailto:wmeasel@armorvci.com)

##### 1.4. Emergency telephone number

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

#### Section 2: HAZARDS IDENTIFICATION

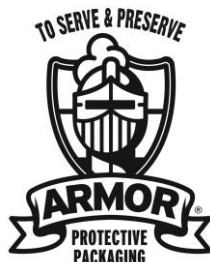
##### 2.1. Classification of the Substance or Mixture *Regulation (EC) No 1272/2008*

Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
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##### 2.2. Label Elements

###### **Product Identifier**

Contains Glycerol



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**Signal Word**  
Warning

**Hazard statements**  
H332 - Harmful if inhaled

**Precautionary Statements - EU (§28, 1272/2008)**  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
P271 - Use only outdoors or in a well-ventilated area  
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

**2.3. Other Hazards**  
No information available

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 MIXTURES

**Chemical nature**  
Polymer binder with Volatile Corrosion Inhibitor Additives.

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Sodium benzoate	Present	532-32-1	<5	Not determined	Not determined
Glycerol	Present	56-81-5	<5	Not determined	Not determined

**Full text of H- and EUH-phrases: see section 16**

### Additional Information

Substances without a classification are included, because they have established occupational exposure limits  
This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

## Section 4: FIRST AID MEASURES

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#### 4.1. Description of First Aid Measures

<b>Eye Contact</b>	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.
<b>Skin Contact</b>	IF ON SKIN: Wash with plenty of water and soap. If skin irritation persists, call a doctor.
<b>Inhalation</b>	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Call a doctor.

#### 4.2. Most Important Symptoms and Effects, Both Acute and Delayed

<b>Symptoms</b>	May irritate eyes by rubbing eyes while handling material. Irritation and allergic dermatitis are possible. Harmful if inhaled. Can cause irritation to mouth, esophagus and stomach.
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#### 4.3. Indication of any Immediate Medical Attention and Special Treatment Needed

<b>Notes to Physician</b>	Treat symptomatically.
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## Section 5: FIREFIGHTING MEASURES

#### 5.1. Extinguishing Media

##### **Suitable Extinguishing Media**

Water spray (fog). Foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical.

##### **Unsuitable Extinguishing Media**

Not determined.

#### 5.2. Special Hazards Arising from the Substance or Mixture

Not determined.

#### 5.3. Advice for Firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

## Section 6: ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

##### **Personal Precautions**

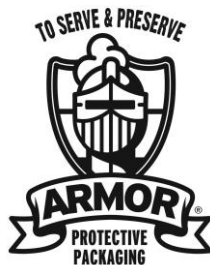
Use personal protective equipment as required.

##### **For Emergency Responders**

Use personal protection recommended in Section 8.

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#### **6.2. Environmental Precautions**

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

#### **6.3. Methods and Material for Containment and Cleaning Up**

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

**Methods for Clean-Up** Keep in suitable, closed containers for disposal.

#### **6.4. Reference to Other Sections**

See Section 13: DISPOSAL CONSIDERATIONS.

## Section 7: HANDLING AND STORAGE

#### **7.1. Precautions for Safe Handling**

##### **Advice on Safe Handling**

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.

##### **General Hygiene Considerations**

Handle in accordance with good industrial hygiene and safety practice.

#### **7.2. 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 enclose packaging.

#### **7.3. Specific End Use(s)**

##### **Specific Use(s)**

Corrosion inhibiting device.

##### **Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **8.1. Control Parameters**

##### **Exposure Limits**

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Chemical name	European Union	United Kingdom	France	Spain	Germany
Sodium benzoate 532-32-1	-	-	-	-	TWA: 10 mg/m <sup>3</sup> H*
Glycerol 56-81-5	-	STEL: 30 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 200 mg/m <sup>3</sup>
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Glycerol 56-81-5	-	TWA: 10 mg/m <sup>3</sup>	-	TWA: 20 mg/m <sup>3</sup>	-
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Sodium benzoate 532-32-1	-	Skin	-	-	-
Glycerol 56-81-5	-	STEL: 100 mg/m <sup>3</sup> TWA: 50 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	-	-

#### 8.2. Exposure Controls

##### Engineering Controls

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

##### Personal Protective Equipment

###### Eye/Face Protection

Use safety glasses or chemical splash goggles.

###### Hand Protection

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

###### Skin and Body Protection

Suitable protective clothing.

###### Respiratory Protection

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

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on Basic Physical and Chemical Properties

##### Physical state

Solid

##### Appearance

Solid plastic-like article

##### Colour

Not determined

##### Odour

Ammoniacal

##### Odour Threshold

Not determined

##### Property

##### Values

##### Remarks • Method

###### pH

Not determined

###### Melting point / freezing point

Not determined

###### Boiling point / boiling range

Not determined

###### Flash point

157 °C / 315 °F

###### Evaporation Rate

Negligible

###### Flammability (Solid, Gas)

Not determined

###### Flammability Limit in Air

###### Upper flammability or explosive limits

Not determined

###### Lower flammability or explosive limits

Not determined

###### Vapour Pressure

Negligible

###### Vapour Density

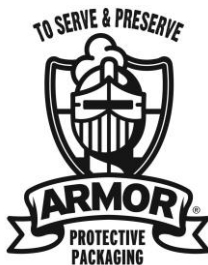
Not determined

###### Relative Density

Not determined

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Water Solubility	Not determined
Solubility(ies)	Not determined
Partition Coefficient	Not determined
Autoignition temperature	Not determined
Decomposition temperature	Not determined
Kinematic viscosity	Not determined

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidising Properties	Not determined	

#### Section 10: STABILITY AND REACTIVITY

##### 10.1. Reactivity

Not reactive under normal conditions.

##### 10.2. Chemical stability

Stable under normal conditions.

##### 10.3. Possibility of Hazardous Reactions

###### **Hazardous Polymerisation**

Hazardous polymerisation does not occur.

###### **Possibility of Hazardous Reactions**

None under normal processing.

##### 10.4. Conditions to Avoid

See Sec. 7 Handling & Storage.

##### 10.5. Incompatible Materials

Strong oxidising agents. Acids.

##### 10.6. Hazardous Decomposition Products

None under normal use conditions.

#### Section 11: TOXICOLOGICAL INFORMATION

##### 11.1. Information on Toxicological Effects

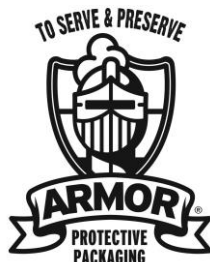
###### **Acute toxicity**

###### Product Information

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

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

**ATEmix (oral)** 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 (vapour).  
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	= 4070 mg/kg (Rat)		
Glycerol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m <sup>3</sup> (Rat) 1 h
Benzotriazole	= 560 mg/kg (Rat)	> 1 g/kg (Rat) > 10000 mg/kg (Rabbit)	= 1910 mg/m <sup>3</sup> (Rat) 3 h
Sodium tolyltriazole	= 1980 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	

**Skin corrosion/irritation** Not classified.  
**Serious eye damage/eye irritation** Not classified.  
**Sensitisation** Not classified.  
**Germ cell mutagenicity** Not classified.  
**Carcinogenicity** Not classified.  
**Reproductive toxicity** Not classified.  
**STOT - single exposure** Not classified.  
**STOT - repeated exposure** Not classified.  
**Aspiration hazard** Not classified.

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#### Section 12: ECOLOGICAL INFORMATION

##### **12.1. Toxicity**

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	Crustacea
Sodium benzoate		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		51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static	500: 24 h Daphnia magna mg/L EC50

##### **12.2. Persistence and Degradability**

Not determined.

##### **12.3. Bioaccumulative Potential**

Chemical name	Partition coefficient
Sodium benzoate	-2.13
Glycerol	-1.76

##### **12.4. Mobility in Soil**

###### **Mobility**

Not determined.

##### **12.5. Results of PBT and vPvB Assessment**

Not determined.

##### **12.6. Other Adverse Effects**

Not determined.

#### Section 13: DISPOSAL CONSIDERATIONS

##### **13.1. Waste Treatment Methods**

###### **Waste from residues/unused products**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

###### **Contaminated Packaging**

Improper disposal or reuse of this container may be dangerous and illegal.

#### Section 14: TRANSPORT INFORMATION

##### **IMDG**

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14.2 Proper Shipping Name Not regulated

#### RID

14.2 Proper Shipping Name Not regulated

#### ADR

14.2 Proper Shipping Name Not regulated

#### IATA

14.2 Proper Shipping Name Not regulated

## Section 15: REGULATORY INFORMATION

### 15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### Persistent Organic Pollutants

Not applicable

#### Ozone-depleting substances (ODS) regulation (EC) 1005/2009

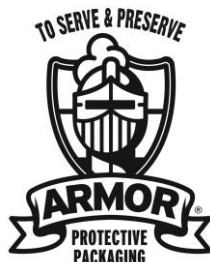
Not applicable

#### International Inventories

Component	TSCA	DSL/NDSL	EINECS/ELINCS	PICCS	ENCS	IECSC	AICS	KECL
Fatty Acids C8-C10 compounded with Diethyl ethanolamine 93571-90-5 (<5)	-	-	X	-	-	-	-	-
Sodium benzoate 532-32-1 (<5)	X	X	X	X	X	X	X	X
Glycerol 56-81-5 (<5)	X	X	X	X	X	X	X	X
Benzotriazole 95-14-7 (<1)	X	X	X	X	X	X	X	X
Sodium tolyltriazole 64665-57-2 (<1)	X	X	X	X	-	X	X	X

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#### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances

#### 15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

### Section 16: OTHER INFORMATION

#### Full text of H-Statements referred to under section 3

Not applicable

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

#### Legend

#### **Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

#### **Classification Procedure**

Calculation method

**Issue Date:** 24-Oct-2014

**Revision Date:** 22-Mar-2019

**Revision Note:** New format.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006, as amended by Commission Regulation (EU) 2015/830

#### **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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