



SAFETY DATA SHEET

ARMOR SHIELD® SMARTY PAK™

1. IDENTIFICATION

Product Identifier

Product Name ARMOR Shield Smarty Pak

Other means of identification

SDS #

Recommended use of the chemical and restrictions on use

Recommended Use Vapor Corrosion Inhibitor & Desiccant Pak for Ferrous & Non-Ferrous Metals.

Details of the supplier of the safety data sheet**Supplier Address**

Armor Protective Packaging
1551 North Burkhart Rd
Howell, MI 48855

Emergency Telephone Number

Company Phone Number Phone: 1-517-546-1117
Fax: 1-248-573-0241

2. HAZARDS IDENTIFICATION

Appearance Pellets & Beads in dustless
tear resistant packet

Physical State Solid

Odor Mild to Bland

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation	Category 4
Eye irritation	Category 2A
Skin irritation	Category 2
Specific target organ toxicity – single exposure – respiratory system	Category 3
Acute / Chronic aquatic toxicity	Category 3

Signal Word

Warning

Hazard Statements

Harmful if swallowed or if inhaled
Causes serious eye irritation
Causes skin irritation
Harmful to aquatic life with long lasting effects

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SAFETY DATA SHEET

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Precautionary Statements - Prevention

Avoid breathing dust / fumes / gas / mist / vapors / spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use in well-ventilated area
Wear protective gloves / eye protection/ face protection

Precautionary Statements - Response

IF SWALLOWED: Call a doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
proprietary		40-60
proprietary		40-60
proprietary		1-10
proprietary		1-10

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

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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Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if necessary.
Ingestion	Never give anything by mouth to unconscious person. Rinse mouth with water. Call a physician.
Symptoms	Harmful if swallowed or if inhaled Causes serious eye irritation Direct contact with skin may cause an allergic reaction in some individuals. Harmful if swallowed.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray (fog). Foam. Carbon dioxide (CO₂). Dry chemical.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Hazardous Combustion Products: Carbon monoxide. Carbon dioxide (CO₂). Nitrogen Oxides

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

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.

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7. HANDLING AND STORAGE

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. Wash hands and any exposed skin thoroughly after handling. Do not eat or drink when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Store in dry well ventilated area and protect from extreme moisture & temperatures.

Material is hygroscopic

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

The following information is given as general guidance

Appropriate engineering controls

Engineering Controls

Eyewash stations, ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Use safety glasses with side shields or splash goggles.

Skin and Body Protection

Use suitable protective clothing and gloves.

Respiratory Protection

For nuisance exposures use type P95 (US) or type P1 (EU EN143) particle respirator. For higher level of protection use type OV/AG (US) or type ABEK-P2 (EU EN 143) respirator cartridges.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Solid	Odor	Mild to Bland
Appearance	Pellets & beads in dustless tear resistant packet		
Color	White, Grey, Tan		
Odor Threshold	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
Melting Point	97-99 ° C / 207-210 ° F	
Boiling Point/Boiling Range	Not determined	
Flash Point	170C (338F) closed cup	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	Not determined	
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions. Avoid water & high humidity. Hygroscopic; reacts with water to evolve heat.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Not expected to occur.

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Conditions to Avoid

See Sec. 7 Handling & Storage.

Incompatible Materials

Strong acids. Caustics.

Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide (CO₂). Nitrogen Oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid inhalation of dust.
Ingestion	Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Benzotriazole	= 560 mg/kg (Rat)	> 1000 mg/kg (Rat)	= 4 h – 1.4mg/l (Rat)

IARC: No Component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No Component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No Component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

OSHA: No Component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

Numerical measures of toxicity

Not determined

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12. ECOLOGICAL INFORMATION

Eco toxicity

Harmful to aquatic life.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Benzotriazole		LC 50 Lepomis macrochirus (Bluegill) – 25 mg/l – 96.0 h		EC 50 Daphnia magna (water flea) 91mg/L – 48h

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

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

Contaminated Packaging

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

14. TRANSPORT INFORMATION

DOT

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

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15. REGULATORY INFORMATION

OSHA Hazards: Toxic by inhalation, harmful by ingestion, irritant

SARA 302: No Chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311 / 312: Acute health hazard

California Proposition 65

This product does not contain any chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm

16. OTHER INFORMATION

NFPA

Health Hazards

Not determined

Flammability

Not determined

Instability

Not determined

Special Hazards

Not determined

HMIS

Health Hazards

Not determined

Flammability

Not determined

Physical Hazards

Not determined

Personal Protection

Not determined

Issue Date:

8-June-2019

Revision Date:

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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