



SAFETY DATA SHEET ARMOR Shield® Dry Coat

1. IDENTIFICATION

Product Identifier

Product Name ARMOR Dry Coat

Other means of identification

SDS # APPAC-006

Recommended use of the chemical and restrictions on use

Recommended Use Water based RP/Corrosion inhibiting solution for 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: 1-517-546-6434

2. HAZARDS IDENTIFICATION

Appearance Clear amber liquid

Physical State Liquid

Odor Bland

Classification

Skin Irritation

Category 2

Eye irritation

Category 2A

Hazard Summary: Irritating to eyes, may cause skin irritation, also harmful by inhalation and if swallowed

Signal Word

Warning

Hazard Statements

Causes skin irritation

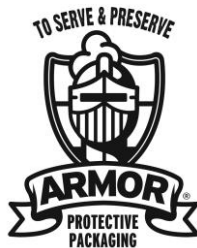
Causes serious eye irritation



International HQ

1551 North Burkhart Road • Howell, MI 48855 USA Ph. 517-546-1117 • Toll Free 800-365-1117 • Fax 517-546-6434

www.armorvci.com • www.workshophero.com



SAFETY DATA SHEET ARMOR Shield® Dry Coat

Potential Health Effects

Inhalation: yes
Skin: yes
Ingestion: yes
Aggravated Medical Condition: None Known

Carcinogenicity:

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 a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Precautionary Statements - Prevention

Wash hands and any exposed skin thoroughly after handling
Wear eye protection / wear protective gloves
Do not eat or drink when using this product
Avoid breathing fume/mist/vapors/spray
Use in a well-ventilated area

Precautionary Statements - Response

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a doctor/physician if symptoms continue
IF SWALLOWED: Rinse mouth and drink plenty of water, obtain medical attention
IF ON SKIN: Wash with plenty of soap and water
IF IN EYES: Rinse cautiously with water for several minutes / remove contact lenses if present and easy to remove / continue rinsing for a total of 15 minutes, seek medical advice.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

International HQ

1551 North Burkhart Road • Howell, MI 48855 USA Ph. 517-546-1117 • Toll Free 800-365-1117 • Fax 517-546-6434
www.armorvci.com • www.workshophero.com



SAFETY DATA SHEET

ARMOR Shield® Dry Coat

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

Chemical Name	CAS No	Weight-%
Di-ethyl amino ethanol	100-37-8	0 - 5
Triethanolamine	102-71-6	0 - 3

Unidentified ingredients are considered not hazardous under Federal Hazard Communication Standard (29CFR 1910.1200).

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.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call doctor/physician if symptoms continue.
Ingestion	IF SWALLOWED: Rinse mouth with water and drink plenty of water. Obtain medical attention.

Most important symptoms and effects

Symptoms	Harmful if inhaled. Harmful if swallowed. Direct contact may cause skin or eye irritation.
-----------------	--

Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
---------------------------	------------------------

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

International HQ

1551 North Burkhart Road • Howell, MI 48855 USA Ph. 517-546-1117 • Toll Free 800-365-1117 • Fax 517-546-6434

www.armorvci.com • www.workshophero.com



SAFETY DATA SHEET ARMOR Shield® Dry Coat

Further Information use water spray to cool unopened containers.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required / Insure adequate ventilation
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	Absorb with inert material or sweep up, and then place in suitable container for chemical waste. Rinse area with clean water and dry before permitting traffic.

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. Avoid breathing vapors or mists. Use in a well-ventilated area. 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 away from incompatible materials. Avoid extreme temperatures. Store indoors in a cool well ventilated area only in original container.
Incompatible Materials	Strong oxidizing agents. Acids.

International HQ

1551 North Burkhart Road • Howell, MI 48855 USA Ph. 517-546-1117 • Toll Free 800-365-1117 • Fax 517-546-6434
www.armorvci.com • www.workshophero.com



SAFETY DATA SHEET ARMOR Shield® Dry Coat

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	Value type (form of exposure)	OSHA PEL	NIOSH IDLH
Di-ethyl amino ethanol / 100-37-8	TWA	2 ppm	ACGIH
	TWA	10 ppm 50.000000 mg/m3	NIOSH REL
	TWA	10 ppm 50.000000 mg/m3	OSHA Z – 1
	TWA	10 ppm 50.000000 mg/m3	OSHA PO
Triethanolamine / 102-71-6	TWA	50.000000 mg/m3	ACGIH

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Use safety glasses with side shields or chemical splash goggles.
- Skin and Body Protection** Suitable protective clothing. Wear suitable gloves and apron. (butyl, nitrile, PVA are all suitable 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.
Avoid contact with skin, eyes and clothing.
Wear suitable gloves, eye/face protection and protective clothing
Wash face, hands and any exposed skin thoroughly after handling.
Provide adequate ventilation / do not inhale fumes
Keep away from food and drink

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid		
Appearance	Clear amber liquid	Odor	Bland
Color	Clear amber	Odor Threshold	Not determined
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	7.8 – 8.7		

International HQ

1551 North Burkhart Road • Howell, MI 48855 USA Ph. 517-546-1117 • Toll Free 800-365-1117 • Fax 517-546-6434

www.armorvci.com • www.workshophero.com



SAFETY DATA SHEET

ARMOR Shield® Dry Coat

Melting Point/Freezing Point	Not determined
Boiling Point/Boiling Range	100 °C / 212 °F
Flash Point	Not determined
Evaporation Rate	(Butyl Acetate = 1) less than 1
Flammability (Solid, Gas)	Liquid - not applicable
Upper Flammability Limits	Not determined
Lower Flammability Limit	Not determined
Vapor Pressure	26.6 hPa
Vapor Density	Not determined
Specific Gravity	1.004 – 1.020
Water Solubility	Soluble in water
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.

Chemical Stability: Stable under recommended storage conditions.

Conditions to Avoid: Direct sources of heat

Incompatible Materials: Strong oxidizing agents, Strong acids, Nitrous acid.

Hazardous Decomposition Products: Carbon oxides. Nitrogen oxides (NO_x).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Harmful if inhaled.
Ingestion	Harmful if swallowed.

International HQ

1551 North Burkhart Road • Howell, MI 48855 USA Ph. 517-546-1117 • Toll Free 800-365-1117 • Fax 517-546-6434
www.armorvci.com • www.workshophero.com



SAFETY DATA SHEET ARMOR Shield® Dry Coat

Component Information

Chemical Name	Acute Oral LD50	Acute Dermal LD50	Acute Inhalation LC50
Di-ethyl amino ethanol	= 1,300.000000 mg/kg (Rat)	1,260.000000 mg/kg (Rabbit) 1,000.000000 mg/kg (Guinea Pig)	= 5.000000 mg/kg (Mouse)
Triethanolamine	4,920.000000 mg/kg (Rat) 5,846.000000 mg/kg (Mouse) 2,200.000000 mg/kg (Rabbit)	16,000.000000 mg/kg (Rat) 20,000.000000 mg/kg (Rabbit)	Target Organs: Respiratory Tract, Liver, Blood, Urinary System, Cardio-vascular system
Tolytriazol Sodium Salt	675.000000 mg/kg (Rat) 640.000000 – 1,980.000000	2,000.000000 mg/kg (Rabbit)	1.750000 mg/l (Rat) Exposure time 3 h

Information on physical, chemical and toxicological effects

Symptoms

Please see section 4 of this SDS for symptoms.

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

Skin corrosion/irritation:	no data available
Serious eye damage / eye irritation	no data available
Respiratory or skin sensitization	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	no data available
Reproductive toxicity	no data available
STOT- single exposure	no data available
STOT- repeated exposure	no data available
Aspiration toxicity	no data available

12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available

Bioaccumulation:

Product: Partition coefficient: n-octanol/water

remarks: no data available

Other Adverse Effects

Not determined

International HQ

1551 North Burkhart Road • Howell, MI 48855 USA Ph. 517-546-1117 • Toll Free 800-365-1117 • Fax 517-546-6434

www.armorvci.com • www.workshophero.com



SAFETY DATA SHEET ARMOR Shield® Dry Coat

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

Note

Transport in bulk per Annex II of Marpol 73/78 and the IBC Code

Not Applicable for product as supplied

IATA

Not Regulated

15. REGULATORY INFORMATION

TSCA Status: All components of this material comply with US TSCA requirements

OSHA Hazards: Toxic by inhalation, Harmful by ingestion, Harmful by skin absorption

WHMIS Classification: D2B Toxic material causing other toxic effects

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Acute Health Hazard

SARA 302: SARA 302 No chemicals are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: 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.

US State Regulations

Massachusetts Right to Know: Di-ethyl amino ethanol 100-37-8
Triethanolamine 102-71-6

Pennsylvania Right to Know: Water 7732-18-5
Triethanolamine salts of dibasic acids 68188-87-4
Octanoic acid, triethanolamine salt 22919-56-8
Di-ethyl amino ethanol 100-37-8
Triethanolamine 102-71-6

International HQ

1551 North Burkhart Road • Howell, MI 48855 USA Ph. 517-546-1117 • Toll Free 800-365-1117 • Fax 517-546-6434

www.armorvci.com • www.workshophero.com



SAFETY DATA SHEET ARMOR Shield® Dry Coat

New Jersey Right to Know:

Water	7732-18-5
Triethanolamine salts of dibasic acids	68188-87-4
Octanoic acid, triethanolamine salt	22919-56-8
Di-ethyl amino ethanol	100-37-8
Triethanolamine	102-71-6
Fatty acids, tallow, compounds with Triethanolamine	61790-67-8

16. OTHER INFORMATION

Issue Date: 16-Dec-2014
Revision Date: 3-Feb-2017
Revision Note: Specific Gravity range

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

International HQ

1551 North Burkhart Road • Howell, MI 48855 USA Ph. 517-546-1117 • Toll Free 800-365-1117 • Fax 517-546-6434
www.armorvci.com • www.workshophero.com