



## SAFETY DATA SHEET

### Metal Rescue Gel

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

##### 1.1. Product Identifier

SDS # APPAC-006-EU  
Product Name Metal Rescue Gel

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

Recommended Use Water based rust removing gel

##### 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*

Serious eye damage/eye irritation	Category 2 - (H319)
-----------------------------------	---------------------

##### 2.2. Label Elements

###### Product Identifier





## SAFETY DATA SHEET

### Metal Rescue Gel

**Signal Word**  
Warning

**Hazard statements**  
H319 - Causes serious eye irritation

**Precautionary Statements - EU (§28, 1272/2008)**

P264 - Wash face, hands and any exposed skin thoroughly after handling  
P280 - Wear eye protection/ face protection  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337 + P313 - If eye irritation persists: Get medical advice/attention

**2.3. Other Hazards**  
No information available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 MIXTURES

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Citric Acid	Present	77-92-9	20-30	Not determined	Not determined
Triethanolamine	Present	102-71-6	1-10	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

#### 4.1. Description of First Aid Measures

**Eye Contact** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin Contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**Inhalation** Remove to fresh air.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.



## SAFETY DATA SHEET

### Metal Rescue Gel

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

**Symptoms** Causes serious eye irritation.

#### 4.3. Indication of any Immediate Medical Attention and Special Treatment Needed

**Notes to Physician** Treat symptomatically.

### Section 5: FIREFIGHTING MEASURES

#### 5.1. Extinguishing Media

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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### **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.

#### 6.2. Environmental Precautions

See Section 12 for additional 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

---

#### 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](http://www.armorvci.com) • [www.workshophero.com](http://www.workshophero.com)



## SAFETY DATA SHEET

### Metal Rescue Gel

#### Advice on Safe Handling

Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection.

#### General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

#### 7.2. Conditions for Safe Storage, Including any Incompatibilities

##### Storage Conditions

Keep container tightly closed and store in a cool, dry and well-ventilated place.

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

##### Specific Use(s)

Water based rust removing gel.

#### 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

Chemical name	European Union	United Kingdom	France	Spain	Germany
Citric Acid 77-92-9	-	-	-	-	TWA: 2 mg/m <sup>3</sup>
Triethanolamine 102-71-6	-	-	-	TWA: 5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Triethanolamine 102-71-6	-	TWA: 5 mg/m <sup>3</sup>	-	TWA: 5 mg/m <sup>3</sup>	TWA: 0.5 ppm TWA: 3.1 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Triethanolamine 102-71-6	STEL 1.6 ppm STEL 10 mg/m <sup>3</sup> TWA: 0.8 ppm TWA: 5 mg/m <sup>3</sup>	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	-	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 15 mg/m <sup>3</sup>

#### 8.2. Exposure Controls

##### Engineering Controls

Apply technical measures to comply with the occupational exposure limits.

##### Personal Protective Equipment

###### Eye/Face Protection

Avoid contact with eyes.

###### Hand Protection

Gloves are not required for normal use.

###### Skin and Body Protection

Suitable protective clothing.

###### Respiratory Protection

Ensure adequate ventilation, especially in confined areas.

#### 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](http://www.armorvci.com) • [www.workshophero.com](http://www.workshophero.com)



## SAFETY DATA SHEET

### Metal Rescue Gel

#### Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Physical state	Solid	Odour	Citrus
Appearance	Clear gel	Odour Threshold	Not determined
Colour	Colourless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	2.8-3.3	
Melting point / freezing point	Not determined	
Boiling point / boiling range	Not determined	
Flash point	Not determined	
Evaporation Rate	Not determined	
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	Not determined	
Vapour Density	Not determined	
Relative Density	1.14-1.24	
Water Solubility	Soluble in water	
Solubility(ies)	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
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

###### Possibility of Hazardous Reactions

None under normal processing.

##### 10.4. Conditions to Avoid

Keep out of reach of children.

##### 10.5. Incompatible Materials

None known based on information supplied.

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](http://www.armorvci.com) • [www.workshophero.com](http://www.workshophero.com)



## SAFETY DATA SHEET

### Metal Rescue Gel

#### 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	Do not inhale.
Eye Contact	Causes serious eye irritation.
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) 11,438.20 mg/kg

##### Unknown Acute Toxicity

- 5 % of the mixture consists of ingredient(s) of unknown toxicity.
- 5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
- 5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
- 5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
- 5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour).
- 5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

##### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Citric Acid	= 3 g/kg ( Rat ) = 3000 mg/kg ( Rat )		
Triethanolamine	= 4190 mg/kg ( Rat )	> 16 mL/kg ( Rat ) > 20000 mg/kg ( Rabbit )	
Proprietary	= 2100 mg/kg ( Rat )		
Proprietary	> 5 g/kg ( Rat )	> 5 g/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.

#### 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](http://www.armorvci.com) • [www.workshophero.com](http://www.workshophero.com)



## SAFETY DATA SHEET

### Metal Rescue Gel

**STOT - single exposure** Not classified.

**STOT - repeated exposure** Not classified.

**Aspiration hazard** Not classified.

## 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
Citric Acid		1516: 96 h Lepomis macrochirus mg/L LC50 static	120: 72 h Daphnia magna mg/L EC50
Triethanolamine	169: 96 h Desmodemus subspicatus mg/L EC50 216: 72 h Desmodemus subspicatus mg/L EC50	450 - 1000: 96 h Lepomis macrochirus mg/L LC50 static 1000: 96 h Pimephales promelas mg/L LC50 static 10600 - 13000: 96 h Pimephales promelas mg/L LC50 flow-through	1386: 24 h Daphnia magna mg/L EC50

### 12.2. Persistence and Degradability

Not determined.

### 12.3. Bioaccumulative Potential

Chemical name	Partition coefficient
Citric Acid	-1.72
Triethanolamine	-2.53

### 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.

#### 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](http://www.armorvci.com) • [www.workshophero.com](http://www.workshophero.com)



## SAFETY DATA SHEET

### Metal Rescue Gel

#### Section 14: TRANSPORT INFORMATION

##### IMDG

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

##### National Regulations

France

##### Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Triethanolamine 102-71-6	RG 49	

##### 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
Citric Acid 77-92-9 ( 20-30 )	X	X	X	X	X	X	X	X
Triethanolamine 102-71-6 ( 1-10 )	X	X	X	X	X	X	X	X

##### 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](http://www.armorvci.com) • [www.workshophero.com](http://www.workshophero.com)



## SAFETY DATA SHEET

### Metal Rescue Gel

Trade Secret ( 1-10 )	X	X	-	X	X	X	X	-
Trade Secret ( <1 )	X	X	-	X	-	X	X	X
Trade Secret ( <1 )	X	X	-	X	-	X	X	X

#### 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/NDL** - 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

	<b>Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</b>		
TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Classification Procedure** Calculation method

**Issue Date:** 16-Mar-2017

**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

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](http://www.armorvci.com) • [www.workshophero.com](http://www.workshophero.com)