



SAFETY DATA SHEET

Metal Rescue Gel

1. Identification

Product identifier

Product Name Metal Rescue Gel

Other means of identification

SDS # APPAC-006-MX

Recommended use of the chemical and restrictions on use

Recommended Use Water based rust removing gel

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

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

Signal word

Warning

Hazard statements

H319 - Causes serious eye irritation

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Exclamation mark

Precautionary Statements - Prevention

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Eyes

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

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%
Citric Acid	77-92-9	20-30

4. First-aid measures

Description of first aid measures

Inhalation

Remove to fresh air.

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 skin with soap and water.

Ingestion

Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

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Symptoms. Causes serious eye irritation

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

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

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 See Section 12 for additional 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.

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7. Handling and storage

Precautions for safe handling

Advice on safe handling

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

Conditions for safe storage, including any incompatibilities

Storage Conditions

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

8. Exposure controls/personal protection

Control parameters

Exposure Limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

Appropriate engineering controls

Engineering controls

Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection

If necessary, refer to appropriate regulations and standards.

Skin and body protection

If necessary, refer to appropriate regulations and standards.

Respiratory protection

If necessary, refer to appropriate regulations and standards.

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	Clear gel
Color	Colorless
Odor	Citrus
Odor Threshold	Not determined

Property

Values

Remarks • Method

pH	2.8-3.3	
Melting point / freezing point	No data available	

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Boiling point / boiling range	No data available
Flash point	No data available
Evaporation Rate	No data available
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	No data available
Vapor Density	No data available
Relative Density	1.14-1.24
Water Solubility	Soluble in water
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

Other information

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.
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

Product Information

Inhalation	Do not inhale.
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 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 (vapor)
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 77-92-9	= 3 g/kg (Rat) = 3000 mg/kg (Rat)	-	-
Trade Secret	= 4190 mg/kg (Rat)	> 16 mL/kg (Rat) > 20000 mg/kg (Rabbit)	-
Trade Secret	= 2100 mg/kg (Rat)	-	-
Trade Secret	> 5 g/kg (Rat)	> 5 g/kg (Rabbit)	-

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

Interactive effects	Not classified.
Skin corrosion/irritation	Not classified.
Serious eye damage/eye irritation	Causes serious eye irritation.
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
Trade Secret	-	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
Citric Acid 77-92-9	-	1516: 96 h Lepomis macrochirus mg/L LC50 static	-	120: 72 h Daphnia magna mg/L EC50
Proprietary	169: 96 h Desmodesmus subspicatus mg/L EC50	450 - 1000: 96 h Lepomis macrochirus mg/L LC50	-	1386: 24 h Daphnia magna mg/L EC50

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	216: 72 h Desmodesmus subspicatus mg/L EC50	static 1000: 96 h Pimephales promelas mg/L LC50 static 10600 - 13000: 96 h Pimephales promelas mg/L LC50 flow-through		
Proprietary	-	3.2: 96 h Pimephales promelas mg/L LC50	-	3.2: 48 h water flea mg/L EC50

Persistence/Degradability No data available.

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Citric Acid 77-92-9	-1.72

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

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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

The Rotterdam Convention Not applicable

International Inventories

Chemical name	TSCA	DSL/NDL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Citric Acid	X	X	X	X	X	X	X	X
Trade Secret	X	X	X	X	X	X	X	X
Trade Secret	X	X		X	X		X	X
Trade Secret	X	X			X	X	X	X
Trade Secret	X	X			X	X	X	X

Legend:

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

DSL/NDL - 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 Not determined

Flammability Not determined

Instability Not determined

Physical and chemical properties Not determined

HMIS

Health hazards Not determined

Flammability Not determined

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

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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
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

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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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