VAPCO PRODUCTS, INC.

Safety Data Sheet
Dry Acid Scale Remover

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Dry Acid Scale Remover
Product number	DSR-10, DSR-50
Brand	Vapco

1.3 Recommended use of the chemical and restrictions on use

Activated dry powder acid

1.4 Supplier's details

Name	Vapco Products, Inc.
Address	401 Marshall Road Valley Park, Missouri 63088 United States
Telephone	(636) 923-2121
Fax	(636) 923-3002
email	info@VapcoProducts.com

1.5 Emergency phone number

(800) 255-3924

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200, 2024)

- Eye damage/irritation, Cat. 2A
- Corrosive to metals, Cat. 1
- Skin corrosion/irritation, Cat. 2

2.2 GHS label elements, including precautionary statements

Pictograms

Signal word	**Warning**

Hazard statement(s)

H290	May be corrosive to metals
H315	Causes skin irritation
H319	Causes serious eye irritation

Precautionary statement(s)

P234	Keep only in original container.
P264	Wash hands thoroughly after handling.
P280	Wear eye protection/face protection/protective gloves.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P321	Specific treatment (see First Aid on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material-damage.
P406	Store in a corrosive resistant container with a resistant inner liner.

Statement regarding ingredients of unknown toxicity
This product contains the following percentage of chemicals of unknown toxicity: 4%.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Sulfamic acid

Concentration	90 - 100 % (weight)
EC no.	226-218-8
CAS no.	5329-14-6
Index no.	016-026-00-0

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
If inhaled	First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the

	buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Get medical advice/attention.
In case of skin contact	Immediately drench affected area with water for at least 15 minutes. Remove contaminated clothing immediately. Obtain medical attention if irritation develops or persists.
In case of eye contact	Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.
If swallowed	Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2 Most important symptoms/effects, acute and delayed

Acute Health Hazards

Symptoms/Injuries: Harmful if inhaled. May cause serious eye damage, skin burns, and respiratory irritation.

Symptoms/Injuries After Skin Contact: Contact with product escaping the container may cause irritation, including but not limited to dermatitis, defatting of tissue, redness, burning, and severe skin damage. Prolonged or repeated exposure may cause irreversible skin damage including burns.

Symptoms/Injuries After Eye Contact: Contact with product escaping the container may cause irritation with redness, stinging, swelling, tearing, blurred vision, and eye damage. Burning may not be immediately painful or visible. Prolonged or repeated exposure may cause irreversible eye damage including corneal damage and blindness.

Symptoms/Injuries After Inhalation: Exposure is possible under certain conditions. Prolonged or repeated exposure may cause irreversible respiratory tract damage.

Symptoms/Injuries Ater Ingestion: Exposure may be harmful or fatal. Symptoms may include: severe gastrointestinal irritation (diarrhea, nausea, and vomiting) and burns to the mouth, throat, and digestive tract.

Medical Conditions Aggravated by Exposure: Skin contact may aggravate existing dermatitis or other significant skin conditions. Inhalation may adversely affect existing respiratory conditions.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand. Note to physician: The absence of visible signs or symptoms of burns does not reliably exclude the presence of actual tissue damage.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Water spray, fog, carbon dioxide (CO2), alcohol-resistant foam, dry chemical, or sand. Use appropriate media for surrounding fire.

5.2 Specific hazards arising from the chemical

Reactivity: Chemically active metals, acids, nitrogen oxide(s), and sulphur oxide(s).

5.3 Special protective actions for fire-fighters

Precautionary Fire Measures: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use dry chemical, foam, or carbon dioxide (CO2). Do not breathe fumes from fire or vapors from decomposition. Do NOT fight fire when fire reaches containers. Evacuate area. Fight fire remotely due to the risk of explosion. Shut off all sources of ignition. Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Wear NIOSH-approved Self-Contained Breathing Apparatus with a full face piece operated in a positive pressure demand mode with full body protective clothing when fighting fires.

Hazardous Combustion Products: Oxides of nitrogen and sulphur.

Further information
Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapors, spray, mist, gas. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
For Non-Emergency Personnel
Protective Equipment: Use appropriate personal protective equipment (PPE).
Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so.
For Emergency Personnel
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedure: Eliminate ignition sources first, then ventilate the area. Evacuate unnecessary personnel, isolate, and ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2 Environmental precautions
Prevent entry to sewers and public waters. Avoid release to the environment.

6.3 Methods and materials for containment and cleaning up
For Containment: Ventilate the area. Contain any spills with dikes or absorbents to prevent further migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.
Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Eliminate all ignition sources. Ventilate area. Stop the ignition source of the release, if safe to do so. Consider the use of water spray to disperse vapors. Isolate the area until gas has dispersed. Ventilate and gas test area before entering. Take up liquid spill into absorbent material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.
Waste Disposal: Dispose of in accordance with local, regional, national, and international regulations. Containers may be hazardous when empty. Do not flame cut, braze, or weld. Product should be fully characterized prior to disposal (40 CFR 261).

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Additional Hazards When Processed: Do not pressurize, cut, or weld containers. Ruptured cylinders may rocket. Pressurized container: May burst if heated. Do not pierce or burn, even after use.
Precautions for Safe Handling: Do not handle until all safety precautions have been read and understood. Avoid contact with skin, eyes and clothing. Do not breathe gas, mist, spray, vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not spray on open flame or other ignition source.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.
Other Precautions: Keep out of reach of children. Follow label instructions. Vapors may collect in low lying areas.

7.2 Conditions for safe storage, including any incompatibilities
Technical Measures: Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.
Storage Conditions: Store in a dry, cool place. Keep only in the original container in a cool, well-ventilated place away from ignition sources. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area.
Incompatible Materials: Strong alkalis.

SECTION 8: Exposure controls/personal protection

8.2 Appropriate engineering controls
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Use explosion-proof equipment. Proper grounding procedures to avoid static electricity should be followed. Use only outdoors or in well-ventilated area. Ensure all local, regional, national, and international regulations are being observed. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Chemical safety goggles. Insufficient ventilation: wear respiratory protection. Respiratory protection of the dependent type.

Skin protection
Wear protective gloves and clothing.

Body protection
Wear suitable protective clothing. Wear protective gloves. Chemical resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

Respiratory protection
Use a NIOSH-approved Self-Containing Breathing Apparatus whenever exposure may exceed established Occupational Exposure Limits.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	Powder
Color	Off-white
Odor	No distinct odor
Odor threshold	N/D
Melting point/freezing point	N/D
Boiling point or initial boiling point and boiling range	N/D
Flammability	Not considered a flammable solid by OSHA (29 CFR 1910.1200)
Lower and upper explosion limit/flammability limit	N/D
Flash point	N/D
Auto-ignition temperature	N/D
Decomposition temperature	N/D
pH	N/A
Kinematic viscosity	N/D
Solubility	Completely soluble in water
Partition coefficient n-octanol/water (log value)	N/D
Vapor pressure	>18

Evaporation rate	<0.8 (Slow)
Density and/or relative density	N/D
Relative vapor density	1 (Air=1)

SECTION 10: Stability and reactivity

10.1 Reactivity
Chemically active metals and acids.

10.2 Chemical stability
Stable under normal conditions of use.

10.3 Possibility of hazardous reactions
None known.

10.4 Conditions to avoid
Do not mix with strong acids.

10.5 Incompatible materials
Strong alkalis. May be corrosive to metals.

10.6 Hazardous decomposition products
Oxides of nitrogen and sulphur.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Sulfamic acid
LD50 Oral - Rat - 3160 mg/kg
LD50 Oral - Mouse - 1312 mg/kg

Skin corrosion/irritation
Causes severe burns, prolonged contact will destroy tissue.

Serious eye damage/irritation
Causes severe burns, irritation, redness, tearing, pain, and may result in loss of sight.

Respiratory or skin sensitization
May cause irritation (possible severe), chemical burns, upper respiratory damage, and pulmonary edema.

Germ cell mutagenicity
Not classified.

Carcinogenicity
Not classified.

Reproductive toxicity
Not classified.

Specific target organ toxicity (STOT) - single exposure
Causes severe burns.

Specific target organ toxicity (STOT) - repeated exposure
Dermatitis may occur due to long-term irritation.

Aspiration hazard
Not classified.

Additional information
Acute Health Hazards
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Symptoms/Injuries After Eye Contact: Contact with product escaping the container may cause irritation with redness, stinging, swelling, tearing, blurred vision, and eye damage. Burning may not be immediately painful or visible. Prolonged or repeated exposure may cause irreversible eye damage including corneal damage and blindness.
Symptoms/Injuries After Inhalation: Exposure is possible under certain conditions. Prolonged or repeated exposure may cause irreversible respiratory tract damage.
Symptoms/Injuries Ater Ingestion: Exposure may be harmful or fatal. Symptoms may include: severe gastrointestinal irritation (diarrhea, nausea, and vomiting) and burns to the mouth, throat, and digestive tract.
Medical Conditions Aggravated by Exposure: Skin contact may aggravate existing dermatitis or other significant skin conditions. Inhalation may adversely affect existing respiratory conditions.

SECTION 12: Ecological information

Toxicity
Sulfamic acid
LC50 - Pimephales promelas (fathead minnow) - 70.3 mg/l - 96 hrs

Persistence and degradability
This product is biodegradable.

Bioaccumulative potential
This product is not expected to bioaccumulate.

Mobility in soil
This product is mobile in soil.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Dispose of contents/container in accordance with local, regional, national, and international regulations. Do not pierce or burn, even after use.

Waste treatment
This material, as supplied, is hazardous waste according to federal regulations (U.S. EPA 40CFR 261). Dispose of in accordance with federal, state, and local regulations.

Sewage disposal
Avoid release into the environment. Keep out of sewers and waterways.

Other disposal recommendations
Container may remain hazardous when empty. Continue to observe all precautions. Do not puncture or incinerate container. Product should be fully characterized prior to disposal.

SECTION 14: Transport information

DOT (US)
UN Number: UN2967
Class: 8
Packing Group: III
Proper Shipping Name: Sulfamic acid

IMDG
UN Number: UN2967
Class: 8
Packing Group: III
EMS Number: N/A
Proper Shipping Name: Sulfamic acid

IATA
UN Number: UN2967
Class: 8
Packing Group: III
Proper Shipping Name: Sulfamic acid

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

New Jersey Right To Know Components
Common name: SULPHAMIC ACID
CAS number: 5329-14-6

US EPA TSCA public inventory
Chemical name: Sulfamic acid
CAS number: 5329-14-6

SECTION 16: Other information

N/A = Not applicable; N/D = Not determined

16.1 Further information/disclaimer

To the best of our knowledge, information contained herein is accurate. However there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard which

exists. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions of handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this SDS. The user is responsible for full compliance.

16.2 Preparation information

Prepared by: Jessica Wilson
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