



VAPCO PRODUCTS, INC.

**Safety Data Sheet
Scale Remover #2**

SECTION 1: Identification

GHS Product identifier

Product name	Scale Remover #2
Product number	SR2-1, SR2-5
Brand	Vapco

Recommended use of the chemical and restrictions on use

Acid-based scale remover

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

Emergency phone number

(800) 255-3924

SECTION 2: Hazard identification

Classification of the substance or mixture

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

- Eye damage/irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1B
- Specific target organ toxicity (single exposure), Cat. 3

GHS label elements, including precautionary statements

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Pictogram



Signal word

Danger

Hazard statement(s)

H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands and other exposed areas thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P321	Specific treatment (see First Aid on this label).
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to the specifications of local, regional, national, and international regulations.

SECTION 3: Composition/information on ingredients

Mixtures

Hazardous components

1. HYDROCHLORIC ACID (<37%)

Concentration	10 - 40 % (weight)
EC no.	231-595-7
CAS no.	7647-01-0
Index no.	017-002-01-X

SECTION 4: First-aid measures

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).
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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 wash affected area with mild soap and water. Obtain medical attention if irritation develops or persists. Immediately take off all contaminated clothing.
In case of eye contact	Immediately rinse with water for at least 30 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. If the individual is conscious and alert, immediately rinse mouth with water and dilute the swallowed material with milk or water. Obtain medical attention.

Most important symptoms/effects, acute and delayed

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

Symptoms/Injuries After Skin Contact: Contact with vapors and/or liquid 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 vapors and/or liquid 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 such as spraying. Prolonged or repeated exposure may cause irreversible respiratory tract damage.

Symptoms/Injuries After 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.

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.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

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

Specific hazards arising from the chemical

Explosion Hazard: Container may explode in heat of fire. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Some vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors.

Reactivity: Hydrochloric acid is corrosive. Hydrogen gas may be formed when this product comes in contact with metals. This product contains a large amount of water and will not burn under normal fire conditions.

Special protective actions for fire-fighters

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

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Do not breathe fumes from fire or vapors from decomposition. Do NOT fight fire when fire reaches container. Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without the 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: May form toxic materials including, but not limited to the following: acid vapors, hydrogen gas, and chlorine compounds.

Further information

Do not allow run-off from fire fighting to enter drain or water courses.

SECTION 6: Accidental release measures

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 Procedures: 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.

Environmental precautions

Prevent entry into sewers and public waters. Avoid release to the environment.

Methods and materials for containment and cleaning up

For Containment: Ventilate area. Contain any spills with dikes or absorbents to contain spill. Dilute spill with large quantities of water and then neutralize with a dilute base. Flush area with water until clean. 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 source of release, if safe to do so. Consider the use of water spray to disperse vapors. Take up spill into absorbent material. Transfer spilled material to a suitable container for disposal. Dilute spill with large quantities of water and then neutralize with a dilute base. Flush area with water until clean. 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. Check the pH of the waste to be disposed. May be subjected to disposal regulations: U.S. EPA 40 CFR 261. Hazardous waste number(s): D002.

Reference to other sections

See Section 8 for exposure controls and personal protection and see Section 13 for disposal considerations.

SECTION 7: Handling and storage

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,

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drinking or smoking and when leaving work. Do not apply on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Keep away from children.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

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: Avoid contact with strong alkalis, and organic materials. Corrosion can occur in contact with some metals and alloys. Do not mix with any products.

Storage Temperature: <50°C/122°F

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 7647-01-0

HYDROCHLORIC ACID (<37%)

Cal/OSHA: (C) 5 ppm PEL inhalation; NIOSH: (C) 5 ppm REL inhalation; OSHA: (C) 5 ppm PEL inhalation; (C) 7 mg/m³ PEL inhalation

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. Gas detectors should be used when flammable gases or vapors may be released. Gas detectors should be used when toxic gases may be released. Oxygen detectors should be used when asphyxiating gases may be released. Ensure all local, regional, national, and international regulations are observed.

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

Pictograms



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. Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

Respiratory protection

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Not required under normal conditions of use; however, if sprayed or used in a confined areas, a NIOSH-approved respirator may be advised in absence of proper environmental control. Use a NIOSH-approved Self-Containing Breathing Apparatus whenever exposure may exceed established Occupational Exposure Limits. Engineering and/or administrative controls should be implemented to reduce exposure.

Environmental exposure controls

Prevent entry into sewers and public waters. Avoid release to the environment.

SECTION 9: Physical and chemical properties and safety characteristics

Basic physical and chemical properties

Physical state	Liquid
Appearance	Clear Liquid
Color	Blue
Odor	Characteristic
Odor threshold	N/A
Melting point/freezing point	32°F (0°C)
Boiling point or initial boiling point and boiling range	212-230°F (100-110°C)
Flammability	N/A
Lower and upper explosion limit/flammability limit	N/A
Flash point	N/A
Explosive properties	N/A
Auto-ignition temperature	N/A
Decomposition temperature	N/A
Oxidizing properties	N/A
pH	<2
Kinematic viscosity	N/A
Solubility	Completely soluble in water
Partition coefficient n-octanol/water (log value)	N/A
Vapor pressure	25.8 mmHg at 70°F (component)
Evaporation rate	Slower than ether
Density and/or relative density	1.00-1.20 at 77°F
Relative vapor density	Heavier than air (Air = 1)

Particle characteristics

N/A

Supplemental information regarding physical hazard classes

Percent VOC: 0%

Further safety characteristics (supplemental)

Avoid contact with strong alkalis, and organic materials. Corrosion can occur in contact with some metals and alloys. Do not mix with any products.

SECTION 10: Stability and reactivity

Reactivity

None known.

Chemical stability

Stable under recommended storage conditions.

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Possibility of hazardous reactions

None known.

Conditions to avoid

Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.

Incompatible materials

Avoid contact with strong alkalis, and organic materials. Corrosion can occur in contact with some metals and alloys. Do not mix with any products.

Hazardous decomposition products

May form toxic materials including, but not limited to the following: acid vapors, hydrogen gas, and chlorine compounds.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

N/A

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.

STOT-single exposure

Upper respiratory damage, chemical burns, and pulmonary edema. Potential loss of sight. May cause drowsiness or dizziness.

STOT-repeated exposure

Dermatitis may occur due to long-term irritation. Central nervous system depression, prolonged or repeated exposure, can cause: nausea, shortness of breath, headache, vomiting, narcosis, and drowsiness.

Aspiration hazard

Not classified.

Additional information

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SECTION 12: Ecological information

Toxicity

N/A

Persistence and degradability

Not classified.

Bioaccumulative potential

Not classified.

Mobility in soil

This product is mobile in soil.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

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

Waste treatment

Check the pH of the waste to be disposed. May be subjected to disposal regulations: U.S. EPA 40 CFR 261. Hazardous waste number(s): D002.

Sewage disposal

Avoid release to 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.

SECTION 14: Transport information

DOT (US)

UN Number: UN 1789

Class: 8

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Packing Group: II
Proper Shipping Name: Hydrochloric acid solution (corrosive material)

IMDG

UN Number: UN 1789
Class: 8
Packing Group: II
Proper Shipping Name: Hydrochloric acid solution (corrosive material)

IATA

UN Number: UN 1789
Class: 8
Packing Group: II
Proper Shipping Name: Hydrochloric acid solution (corrosive material)

SECTION 15: Regulatory information

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

California Prop. 65 Components

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

Canadian Domestic Substances List (DSL)

Chemical name: Hydrochloric acid
CAS: 7647-01-0

Chemical name: 1-Propanesulfonic acid, 3-chloro-2-hydroxy-, monosodium salt, reaction products with 2-heptyl-4,5-dihydro-1H-imidazole-1-ethanol
CAS: 68610-39-9

Canadian Non-Domestic Substances List (NDSL)

Chemical name: Formaldehyde, polymer with 2-methylbenzenamine hydrochloride
CAS: 68492-82-0

Massachusetts Right To Know Components

Chemical name: Hydrochloric acid
CAS number: 7647-01-0

New Jersey Right To Know Components

Common name: HYDROGEN CHLORIDE
CAS number: 7647-01-0

Pennsylvania Right To Know Components

Chemical name: Hydrochloric acid
CAS number: 7647-01-0

SARA 311/312 Hazards

Health - Acute (Yes) Chronic (No) Fire (No) Reactivity (Yes)

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SARA 313 Components

Hydrochloric acid is subject to the reporting requirements.

Toxic Substances Control Act (TSCA) Inventory

All chemicals are listed or exempt.

HMIS Rating

Scale Remover #2	
HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	B

NFPA Rating



SECTION 16: Other information

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

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.

Preparation information

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