

MATERIAL SAFETY DATA SHEET

Klean Strip Rust Remover

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HEALTH		3
FLAMMABILITY		0
PHYSICAL HAZ.		0
PPE		X



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1. Product and Company Identification

Product Code: 404.3
Product Name: Klean Strip Rust Remover
Manufacturer Information
Company Name: W. M. Barr
2105 Channel Avenue
Memphis, TN 38113
Phone Number: (901)775-0100
Emergency Contact: 3E 24 Hour Emergency Contact (800)451-8346
Information: W.M. Barr Customer Service (800)398-3892
Web site address: www.wmbarr.com
Preparer Name: W.M. Barr EHS Dept (901)775-0100
Intended Use: Removes rust and rust stains from metal surfaces.
Synonyms
WRK37

2. Hazards Identification

Emergency Overview

Caution! Harmful if swallowed. May be injurious to mucous membranes. Skin and eye irritant.

OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

Health Hazards (Acute and Chronic)

This material has not been tested as a whole for health effects. The information below is for the individual ingredients listed in Section 3.

INHALATION:

Can cause irritation or corrosive burns to the upper respiratory system, including nose, mouth, and throat. Lung irritation and pulmonary edema can also occur.

SKIN CONTACT:

May cause irritation with pain and stinging, especially if the skin is abraded. May cause skin burns. May be absorbed through intact skin, but has been considered toxicologically insignificant.

EYE CONTACT:

Substance is corrosive. Causes eye irritation, May produce a burning sensation, redness, tearing, inflammation, and possible corneal injury. May cause burns and blindness.

INGESTION:

Causes irritation and can cause corrosive burns to the mouth, throat and stomach. Can be fatal if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Aspiration into the lungs may cause chemical pneumonitis.

CHRONIC EXPOSURE EFFECTS: Long term exposure may cause upper respiratory disease and irritation of the skin.

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TARGET ORGANS: kidney, upper respiratory system, lung, central nervous system, eyes and skin

ROUTES OF EXPOSURE: inhalation, ingestion, absorption

Signs and Symptoms Of Exposure

See Potential Health Effects

Medical Conditions Generally Aggravated By Exposure

Diseases of the skin and respiratory system/lungs.

3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration
1. Phosphoric acid {Orthophosphoric acid}	7664-38-2	15.0 -40.0 %
2. Isopropyl alcohol {sec-Propyl alcohol; IPA; 2-Propanol}	67-63-0	3.0 -7.0 %
3. Ammonium bifluoride {Ammonium hydrogen difluoride}	1341-49-7	< 1.0 %

4. First Aid Measures

Emergency and First Aid Procedures

Skin:

Remove contaminated clothing. Immediately wash skin thoroughly with large amounts of water for at least 15 minutes. Seek medical attention.

Eyes:

Immediately begin to flush eyes with water, remove any contact lens. Continue to flush the eyes for at least 15 minutes. Seek medical attention.

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Ingestion:

If swallowed, do NOT induce vomiting. Give one or two glasses of water, or milk if available. Seek immediate medical attention. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Note to Physician

Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire Fighting Measures

Flammability Classification:

FP: No Flash To Boiling

Flash Pt:

NA

Explosive Limits:

LEL: No data.

UEL: No data.

Special Fire Fighting Procedures

No special instructions required. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear. Keep containers cool with water spray.

Unusual Fire and Explosion Hazards

FLASHPOINT: NO FLASH TO BOILING

Hazardous Combustion Products

The following products may be released if the material is involved in a fire: oxides of carbon; phosphorus oxides and/or phosphine from thermal decomposition and hydrogen from reaction with metals.

Suitable Extinguishing Media

Non-combustible liquid - use extinguishing media for underlying cause of fire.

Unsuitable Extinguishing Media

None known.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled

Isolate the immediate area. Prevent unauthorized entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to compatible containers. For large spills, dike ahead of the spill.

7. Handling and Storage

Precautions To Be Taken in Handling

Carefully read all cautions and directions on the product label before use. Protect hands with solvent-resistant gloves, and eyes with safety glasses.

Use in areas with adequate ventilation.

Avoid breathing vapors or mist and contact with the skin and eyes.

Precautions To Be Taken in Storing

Close container and store upright after each use. Do not reuse the container. Store out of direct sunlight.

8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TWA	Other Limits
1. Phosphoric acid {Orthophosphoric acid}	7664-38-2	1 mg/m3	1 mg/m3	No data.
2. Isopropyl alcohol {sec-Propyl alcohol; IPA; 2-Propanol}	67-63-0	400 ppm	200 ppm	No data.
3. Ammonium bifluoride {Ammonium hydrogen difluoride}	1341-49-7	No data.	No data.	No data.

Respiratory Equipment (Specify Type)

For OSHA controlled workplace and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator for acid vapors. A dusk mask does not provide protection against vapors.

Eye Protection

Where there is potential for eye contact, wear chemical goggles, or a faceshield. Safety glasses should be worn at a minimum, but do not provide 100% protection from splashing or spraying chemical. Have eye flushing equipment immediately available.

Protective Gloves

Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile may provide protection. Glove selection should be based on chemicals being used and conditions of use. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.

Other Protective Clothing

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure. Remove contaminated clothing and wash separately before reuse.

Ventilation

Use only with adequate ventilation.

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate

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and concentrate,

Whenever possible, use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- STOP -- ventilation is inadequate. Leave area immediately and move to fresh air.

Work/Hygienic/Maintenance Practices

Wash hands thoroughly after use and before eating, drinking, or smoking.

Do not eat, drink, or smoke in the work area.

Discard any clothing or other protective equipment that cannot be decontaminated.

Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.

9. Physical and Chemical Properties

Physical States:	[] Gas	[X] Liquid	[] Solid
Melting Point:	No data.		
Boiling Point:	No data.		
Autoignition Pt:	No data.		
Flash Pt:	NA		
Explosive Limits:	LEL: No data.	UEL: No data.	
Specific Gravity (Water = 1):	No data.		
Density:	9.5 LB/GL		
Bulk density:	No data.		
Vapor Pressure (vs. Air or mm Hg):	2 MM HG at 68.0 F		
Vapor Density (vs. Air = 1):	No data.		
Evaporation Rate (vs Butyl Acetate=1):	No data.		
Solubility in Water:	No data.		
Percent Volatile:	26.7 % by weight.		
VOC / Volume:	4.8000 % WT		
Heat Value:	No data.		
Particle Size:	No data.		
Corrosion Rate:	No data.		
pH:	< 1		

Appearance and Odor

hazy, pink, viscous liquid

10. Stability and Reactivity

Stability: Unstable [] Stable [X]

Conditions To Avoid - Instability

No data available.

Incompatibility - Materials To Avoid

acids, bases, strong oxidizers

Hazardous Decomposition Or Byproducts

carbon monoxide, carbon dioxide

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Possibility of Hazardous Reactions: Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Reactions

No data available.

11. Toxicological Information

This product has not been tested as a whole. Information below will be for individual ingredients.

Phosphoric Acid:

ACUTE TOXICITY:

LD50 Rat oral 1520 mg/kg

LD50 Rabbit skin 2740 mg/kg

LC50 (guinea pig, mouse, rat, rabbit) 61-1,689 mg/m³

Not found to be toxic to animals by oral and dermal exposure as defined by OSHA. Highly toxic to animals by inhalation as defined by OSHA.

SKIN CORROSION / IRRITATION: Can cause severe skin irritation and burns.

SERIOUS EYE DAMAGE / IRRITATION: Can cause severe eye irritation and damage.

RESPIRATORY OR SKIN SENSITIZATION: Not considered a sensitizer.

ASPIRATION HAZARD: No data.

MUTAGENIC DATA: No data.

IMMUNOTOXICITY: No data.

NEUROTOXICITY: No data.

DEVELOPMENTAL/REPRODUCTIVE: No data.

CARCINOGEN STATUS: Not listed.

Isopropanol:

ACUTE TOXICITY:

LD50 Rat oral 5045 mg/kg

LD50 Rabbit oral 8.0 g/kg

LD50 Rabbit skin 12,800 mg/kg

SKIN CORROSION / IRRITATION: Skin irritant.

SERIOUS EYE DAMAGE / IRRITATION: Eye irritant.

RESPIRATORY OR SKIN SENSITIZATION: Not a sensitizer.

ASPIRATION HAZARD: Aspiration hazard.

MUTAGENIC DATA: No data.

IMMUNOTOXICITY: No data.

NEUROTOXICITY: No data.

DEVELOPMENTAL/REPRODUCTIVE: Experimental teratogenic and reproductive effects have been reported for isopropanol.

CARCINOGEN STATUS: Not classifiable as a human carcinogen.

Ammonium Bifluoride:

ACUTE TOXICITY:

LD50 Rat oral about 130 mg/kg

SKIN CORROSION / IRRITATION: Can cause severe irritation or burns.

SERIOUS EYE DAMAGE / IRRITATION: May cause irritation, tearing or burns.

RESPIRATORY OR SKIN SENSITIZATION: Not a sensitizer.

ASPIRATION HAZARD: No data.

MUTAGENIC DATA: No data.

IMMUNOTOXICITY: No data.

NEUROTOXICITY: No data.

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DEVELOPMENTAL/REPRODUCTIVE: No data.

CARCINOGEN STATUS: Not classifiable as a human carcinogen.

Chronic Toxicological Effects

This product has not been tested as a whole.

Carcinogenicity/Other Information

No data available.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Phosphoric acid {Orthophosphoric acid}	7664-38-2	n.a.	n.a.	n.a.	n.a.
2. Isopropyl alcohol {sec-Propyl alcohol; IPA; 2-Propanol}	67-63-0	n.a.	n.a.	A4	n.a.
3. Ammonium bifluoride {Ammonium hydrogen difluoride}	1341-49-7	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

No information available for this product as a whole.

Phosphoric Acid:

TOXICITY:

LC50 Fish 3.0-3.5 mg/L 96 hr

Moderately toxic to aquatic organisms as defined by USEPA.

PERSISTENCE AND DEGRADABILITY: Phosphoric acid undergoes ionic dissociation in water. While acidity of this material is readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems.

BIOACCUMULATIVE POTENTIAL: See above.

MOBILITY IN SOIL: No data.

OTHER ADVERSE EFFECTS: No data.

Isopropanol:

TOXICITY:

LC50 Fathead minnow >1,000 ppm 96 hr

LC50 Daphnia >1,000 ppm 96 hr

Isopropanol has a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism.

PERSISTENCE AND DEGRADABILITY: High potential to biodegrade/low persistence with unacclimated microorganisms from activated sludge.

BIOACCUMULATIVE POTENTIAL: The potential for bioconcentration in aquatic organisms is low.

MOBILITY IN SOIL: Expected to have very high mobility in soil.

OTHER ADVERSE EFFECTS: No data.

Ammonium Bifluoride:

TOXICITY: No data.

PERSISTENCE AND DEGRADABILITY: Ammonia compounds are biodegradable.

BIOACCUMULATIVE POTENTIAL: Ammonia compounds will not accumulate in the food chain.

MOBILITY IN SOIL: No data.

OTHER ADVERSE EFFECTS: No data.

13. Disposal Considerations

Waste Disposal Method

Dispose of in accordance with local, state, and federal laws.

Do not allow material to enter bodies of water or sewers.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name Corrosive Liquid, n.o.s., Ltd. Qty. (Phosphoric Acid, Ammonium Bifluoride)
DOT Hazard Label: CORROSIVE
UN/NA Number: 1760
Packing Group: II
DOT Hazard Class: 8

Additional Transport Information

For D.O.T. information, contact W.M. Barr Technical Services at 1-800-398-3892.

The shipper/supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Phosphoric acid {Orthophosphoric acid}	7664-38-2	No	Yes 5000 LB	No	No
2. Isopropyl alcohol {sec-Propyl alcohol; IPA; 2-Propanol}	67-63-0	No	No	Yes	No
3. Ammonium bifluoride {Ammonium hydrogen difluoride}	1341-49-7	No	Yes 100 LB	No	No

US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. Phosphoric acid {Orthophosphoric acid}	7664-38-2	HAP, ODC ()	No	Inventory	No
2. Isopropyl alcohol {sec-Propyl alcohol; IPA; 2-Propanol}	67-63-0	HAP, ODC ()	No	Inventory	No
3. Ammonium bifluoride {Ammonium hydrogen difluoride}	1341-49-7	HAP, ODC ()	No	Inventory	No

SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:

- Sec.302:** EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. * indicates 10000 LB TPQ if not volatile.
- Sec.304:** EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. ** indicates statutory RQ.
- Sec.313:** EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.
- Sec.110:** EPA SARA 110 Superfund Site Priority Contaminant List

TSCA (Toxic Substances Control Act) Lists:

- Inventory:** Chemical Listed in the TSCA Inventory.
- 5A(2):** Chemical Subject to Significant New Rules (SNURS)
- 6A:** Commercial Chemical Control Rules

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8A: Toxic Substances Subject To Information Rules on Production
8A CAIR: Comprehensive Assessment Information Rules - (CAIR)
8A PAIR: Preliminary Assessment Information Rules - (PAIR)
8C: Records of Allegations of Significant Adverse Reactions
8D: Health and Safety Data Reporting Rules
8D TERM: Health and Safety Data Reporting Rule Terminations
12(b): Notice of Export

Other Important Lists:

CWA NPDES: EPA Clean Water Act NPDES Permit Chemical
CAA HAP: EPA Clean Air Act Hazardous Air Pollutant
CAA ODC: EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)
CA PROP 65: California Proposition 65

International Regulatory Lists:

EPA Hazard Categories:

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

Yes No Acute (immediate) Health Hazard
 Yes No Chronic (delayed) Health Hazard
 Yes No Fire Hazard
 Yes No Sudden Release of Pressure Hazard
 Yes No Reactive Hazard

16. Other Information

Company Policy or Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.