SAFETY DATA SHEET
WHITE-OX Fast Acting Rust Remover Liquid

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Name: WHITE-OX Fast Acting Rust Remover Liquid

Product Code(s): WOL1, WOL5

Synonyms: Aqueous acidic mixture

REACH Registration Number: No data available

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

General Use: Rust stain remover

Uses advised against: No uses advised against

1.3 Details of the supplier and of the safety data sheet

Manufacturer/Distributor

Pharmco Laboratories, Inc.
3520 South Street
Titusville, FL 32780 USA
+1-800-635-0712

1.4 Emergency telephone number

INFOTRAC: +1-800-535-5053 for the USA and Canada
Outside the USA or Canada: +1-352-323-3500

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Mixture

Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation (EC) No 1272/2008

Skin Corrosive - Category 1C [H314]

Acute Toxicity, Oral - Category 5 [H303]

2.2 Label Elements

Hazard Symbol(s):

GHS05

Signal Word: Danger

Hazard Statement(s):
H303 - May be harmful if swallowed.
H314 - Causes severe skin burns and eye damage

Precautionary Statements:

[Prevention]
P260 - Do not breathe mists.
P264 - Wash hands and other skin areas exposed to material thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection and face protection.

[Response]
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or shower.
P363 - Wash contaminated clothing before reuse.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 - Immediately call a POISON CENTER or doctor.
P321 - Specific treatment: Seek IMMEDIATE medical advice. Refer to product label and Section 4 of this SDS.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

[Storage]
P405 - Store locked up.

[Disposal]
P501 - Dispose of contents and containers in accordance with national and local regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
<6.0	Oxalic Acid	144-62-7	205-634-3	607-006-00-8	H302, H312
<1.0	Ammonium Fluoride	12125-01-8	235-185-9	009-006-00-8	H301, H311, H331
<0.6	Hydrogen Fluoride	7664-39-3	231-634-8	009-003-00-1	H310, H314, H330

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

3.2 Mixtures

Not applicable

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product mist causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight fitting clothing such as a collar, tie, belt or waistband. Seek immediate medical attention.

Eyes: Immediately flush eyes with large amounts of water for 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after the first 2 minutes and continue rinsing. Seek immediate medical attention, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing, and continue rinsing for at least 15 minutes. Wash contaminated clothing thoroughly before reuse. Discard contaminated shoes. Seek medical attention.

Ingestion: Rinse mouth with water if the victim is conscious. Remove dentures, if any. Give 2 - 3 glasses of water to drink, if the victim is conscious, alert and able to swallow. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious or convulsing person. Obtain immediate medical attention. To prevent aspiration of swallowed product, lay the victim on one side with the head lower than the waist.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: Causes severe eye irritation and serious eye damage. Symptoms may include redness, swelling, pain, tearing, blurred vision, tissue burns and corneal injury. May cause permanent eye damage. Risk of blindness. Symptoms may be delayed.

Skin: Causes serious skin irritation and burns. Symptoms may include redness, itching, swelling and possible blistering and burns. May cause dermatitis. May be harmful if absorbed through the skin. Effects may be delayed.

Inhalation: Inhalation of mist causes irritation of and burns to the respiratory system and the mucous membranes. Symptoms may include cough, sore throat, runny nose, nose bleed, headache, loss of appetite, vomiting and shortness of breath. May cause damage to the mucous membranes. Aspiration of material may cause pulmonary edema and pneumonitis. Effects may be delayed.

Ingestion: Harmful if swallowed. Causes severe irritation of and burns to the gastrointestinal tract with salivation, vomiting, abdominal pain, nausea, possible bloody diarrhea and shock. Causes burns to the mouth, lips and throat, swelling of the larynx and difficulty breathing. May cause pulmonary edema and hemorrhaging of the digestive tract. May cause hypocalcemia.

Chronic: Prolonged and repeated inhalation of product mist may result in weight loss, chronic nose bleed, respiratory tract inflammation, chronic bronchitis, tetany and hypocalcemia. Chronic skin contact may result in dermatitis, uncerations and tissue damage.

4.3 Indication of any immediate medical attention and special treatment needed

Advice to Doctor and Hospital Personnel

Treat symptomatically and supportively. Fluoride ions can reduce serum calcium levels possibly causing fatal hypocalcemia. Intravenous administration of calcium gluconate or calcium chloride may be required if hypocalcemia or hypocalcemic tetany occurs.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishable media

Suitable methods of extinction: Use extinguishing media suitable for surrounding material.

Unsuitable methods of extinction: None known

5.2 Special hazards arising from the substance or mixture

Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Explosion hazards: Not considered to be an explosion hazard.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. If possible, water contaminated by this material should be contained and prevented from being discharged to any waterway, sewer or drain to prevent environmental contamination.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Wear appropriate protective clothing designated in Section 8. Ventilate the area. Remove all sources of ignition. No smoking.

6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.

6.3 Methods and materials for containment and cleaning up

Cover drains and contain spill. Do not flush the spill down the drain. Cover with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect product and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Dispose of waste via a licensed waste disposal contractor.

6.4 Reference to other sections

See Section 13 for additional waste treatment information.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8. Do not get in eyes or on skin or clothing. Do not breathe mist. No smoking. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. Wash contaminated clothing before reuse. Destroy contaminated shoes.

Advice on protection against fire and explosion

Not considered a fire or explosion hazard

7.2 Conditions for safe storage, including any incompatibilities

Store in dry, cool, well-ventilated areas away from incompatible materials (see Section 10.5), food and drink. Transfer only to approved containers having correct labeling. Keep container upright and tightly closed. Protect container against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Containers of this material are hazardous when empty since they retain product residues. Use appropriate containment to avoid environmental contamination. Ventilate enclosed areas. Do not take internally. Keep out of reach of children.

7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits

CAS Number	Ingredient	OSHA PEL	ACGIH TLV	NIOSH
144-62-7	Oxalic Acid	1 mg/m^3 TWA	1mg/m^3 TWA; 2 mg/m^3 STEL	1 mg/m^3 TWA; 500 mg/m^3 IDLH
12125-01-8	Ammonium Fluoride	2.5 mg/m^3 TWA	2.5 g/m^3 TWA	2.5 mg/m^3 TWA
7664-39-3	Hydrogen Fluoride	2.5 mg/m^3 TWA	2.5 g/m^3 TWA	2.5 mg/m^3 TWA

8.2 Exposure controls

Engineering Measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1 for additional data.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Eye/face protection: Wear protective goggles or safety glasses with non-perforated side shields and a face shield. Refer to 29 CFR 1910.133, ANSI Z87.4 or Standard EN 166.

Hand Protection: Wear gloves butyl rubber or neoprene gloves, or those recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of gloves must be greater than the intended use period.

Other protective equipment: Wear protective clothing. Wear protective boots if the situation requires.

Respiratory Protection: None required with normal use. Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls: Do not empty into drains.

PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear, nearly colorless liquid
Odor	Faint
Odor Threshold	No data available
Molecular Weight	Not applicable
Chemical Formula	Not applicable
pH	<2
Freezing/Melting Point, Range	<0 °C (<32 °F)
Initial Boiling Point	100 °C (212 °F)
Evaporation Rate	No data available
Flammability (solid, gas)	Not applicable
Flash Point	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available

Lower Explosive Limit (LEL)	Not applicable
Upper Explosive Limit (UEL)	Not applicable
Vapor Pressure	No data available
Vapor Density	>1 (Air = 1)
Specific Gravity	1.015
Viscosity	No data available
Solubility in Water	Dispersible
Partition Coefficient: n-octanol/water	No data available
Oxidizing Properties	Not applicable
Explosive Properties	Not applicable
Volatiles by Volume @ 70 ºF	>90%

9.2 Other data

No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

No special reactivity has been reported.

10.2 Chemical stability

This product is stable under recommended storage conditions, handling and use.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Avoid temperature extremes, hot surfaces and contact with incompatible materials.

10.5 Incompatible materials

Strong oxidizing agents, strong alkalis and bases, strong acids, strong reducing agents, metals and metal powders

10.6 Hazardous decomposition products

Thermal decomposition products include oxides of carbon, formic acid, nitrogen oxides, hydrogen fluoride.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral Toxicity

LD_{50}, rat: >5,000 mg/kg *calculated*

Acute inhalation toxicity

No data available

Acute dermal toxicity

Expected to have low acute dermal toxicity

Skin irritation/corrosion

Causes skin irritation

Eye irritation/corrosion

Causes serious eye damage. Risk of blindness.

Sensitization

No data available

Genotoxicity in vitro

No data available

Mutagenicity

No data available

Specific organ toxicity - single exposure

No data available

Specific organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Further information

Oxalic acid caused kidney damage in fetal sheep and rats, and disturbed the estrus cycle in rats. Increased sperm abnormalities were seen in the second generation of mice administered 0.2% oxalic acid in drinking water.

The concentrations of ammonium fluoride/hydrogen fluoride potentially found in consumer products may pose risk of symptoms due to skin, ingestion or inhalation exposure. Persons suffering from eye or ingestion exposure to consumer strength ammonium fluoride/hydrogen fluoride products may experience symptoms similar to persons exposed to industrial strength ammonium fluoride/hydrogen fluoride.

No component of this product present at levels greater than or equal to the 0.1% threshold (de minimis) is identified as a probable, possible, potential or confirmed carcinogen by ACGIH, IARC, NTP or OSHA. No data is available regarding the mutagenicity or teratogenicity of this product, nor is there any available data that indicates that it causes adverse developmental or fertility effects.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

Large discharges of this product to the environment may decrease the pH of aquatic systems to a value <2, which may be fatal to aquatic life and soil microorganisms.

12.2 Persistence and degradability

Organic substances in this product are expected to biodegrade.

12.3 Bioaccumulation potential

This material will not bioaccumulate.

12.4 Mobility in soil

This product has high mobility in soil.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available.

12.6 Other adverse effects

Additional ecological information

Do not allow material to run into surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Methods of disposal: The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

RCRA P-Series: No listing

RCRA U-Series: No listing

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

US DOT (Domestic Ground Transportation)

Proper Shipping Name:	Compounds, cleaning liquid (Oxalic Acid, Ammonium Fluoride)
Hazard Class:	8
UN/NA:	NA1760
Packing Group:	III
NAERG:	Guide #154
Packaging Authorization:	Non-Bulk: 49 CFR 173.203; Bulk: 173.241
Packaging Exceptions:	49 CFR 173.154

IMO/IMDG (Water Transportation)

Proper Shipping Name:	Corrosive liquids, n.o.s. (Oxalic Acid, Ammonium Fluoride)
Hazard Class:	8
UN/NA:	UN1760
Packing Group:	III
Marine Pollutant:	No
EMS Number:	F-A, S-B

ICAO/IATA (Air Transportation)

Proper Shipping Name:	Corrosive liquids, n.o.s. (Oxalic Acid, Ammonium Fluoride)
Hazard Class:	8
UN/NA:	UN1760
Packing Group:	III
Quantity Limitations:	49 CFR 173.27 and 175.75 - Cargo Aircraft Only: 60 kg; Passenger Aircraft: 5 kg

RID/ADR (Rail Transportation)

Proper Shipping Name:	Corrosive liquids, n.o.s. (Oxalic Acid, Ammonium Fluoride)
Hazard Class:	8
UN/NA:	UN1760
Packing Group:	III

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

U. S. Federal Regulations

OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

OSHA Process Safety Management Standard: Chemicals in this product are not regulated under OSHA PSM Standard 29 CFR 1910.119.

EPA Risk Management Planning Standard: Chemicals in this product are not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

EPA Federal Insecticide, Fungicide and Rodenticide Act: This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

Toxic Substance Control Act (TSCA) Inventory: All of the components of this product are on the TSCA Inventory. This product is not subject to TSCA 12(b) Export Notification.

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.4(f)(2) and Chemical Code Number
No listings

Drug Enforcement Administration (DEA) Lists 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number
No listings

Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals
No listings

Superfund Amendments and Reauthorization Act (SARA)

SARA 313 Information: None of the components of this product exceed the reporting threshold (de minimis) reporting levels established by Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

SARA Section 311/312 Hazard Categories: Acute Health Hazard, Chronic Health Hazard

SARA 302/304 Extremely Hazardous Substance: None of the components of this product exceed the reporting threshold (de minimis) reporting levels established by these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification: None of the components of this product exceed the reporting threshold (de minimis) reporting levels established by these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): This product contains the following CERCLA reportable substances:
Ammonium Fluoride (CAS #12125-01-8), RQ - 45.4 kg (100 lbs) Hydrogen Fluoride (CAS #7664-39-3), RQ - 45.4 kg (100 lbs)

Clean Air Act (CAA)
This product does not contain any chemicals listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).
This product does not contain any Class 1 Ozone depletors.
This product does not contain any Class 2 Ozone depletors.

Clean Water Act (CWA)
Ammonium Fluoride (CAS #12125-01-8) and Hydrogen Fluoride (CAS #7664-39-3) are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986
This product contains no chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm.

Other U.S. State Inventories
Oxalic Acid Anhydrous (CAS #144-62-7) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/ Air Pollutants list(s): CA, ID, ME, MA, NM, NJ, PA, RI, WA, WI.

Ammonium Fluoride (CAS #12125-01-8) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/ Air Pollutants list(s): CA, DE, MA, NJ, PA, RI.

Hydrogen Fluoride (CAS #7664-39-3) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants list(s): CA, DE, ME, MA, NC, NJ, NY, PA, RI, WA.

Canada

WHMIS Hazard Symbol and Classification

E - Corrosive Material

Canadian National Pollutant Release Inventory (NPRI): Hydrogen Fluoride (CAS #7664-39-3) is listed on the NPRI.

European Economic Community

WGK, Germany (Water danger/protection): 1 (low hazard to waters)

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

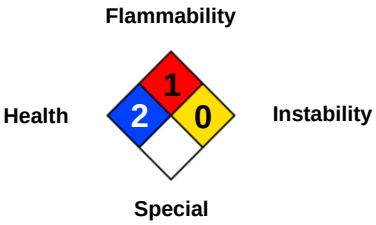
Hazardous Material Information System (HMIS)

Health	* 2
Flammability	1
Physical Hazard	0
Personal Protection	C

HMIS Hazard Rating Legend
0 = Minimal 1 = Slight 2 = Moderate 3 = Serious
4 = Severe * = Chronic Health Hazard

NFPA Hazard Rating Legend
0 = Insignificant 1 = Slight 2 = Moderate
3 = High 4 = Extreme

National Fire Protection Association (NFPA)



Full text of GHS Hazard Phrases referenced in Section 3 (not covered in Section 2)

H301 - Toxic if swallowed
H302 - Harmful of swallowed
H310 - Fatal in contact with skin
H311 - Toxic in contact with skin
H312 - Harmful in contact with skin
H330 - Fatal if inhaled
H331 - Toxic if inhaled

Abbreviation Key

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)
CAS	Chemical Abstract Services
CFR	Code of Federal Regulations
DOT	Department of Transportation
EC_{50}	Half maximal effective concentration
EMS Guide	Emergency Response Procedures for Ships Carrying Dangerous Goods
EPA	Environmental Protection Agency
ErC_{50}	Reduction of Growth Rate
ERG	Emergency Response Guide Book
FDA	Food and Drug Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
HCS	Hazard Communication Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IC_{50}	Half Maximal Inhibitory Concentration
ICAO	International Civil Aviation Organization
IDLH	Immediately Dangerous to Life and Health
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC_{50}	50% Lethal Concentration
LD_{50}	50% Lethal Dose
LD_{Lo}	Lowest Lethal Dose
mppcf	Millions of Particles Per Cubic Foot
NA	North America
NAERG	North American Emergency Response Guide Book
NIOSH	National Institute for Occupational Safety
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PBT	Persistent, Bioaccumulating and Toxic
PEL	Permissible exposure limit
PMCC	Pensky-Martens Closed Cup
ppm	Parts Per Million
RCRA	Resource Conservation and Recovery Act
RID	Dangerous Goods by Rail
RQ	Reportable Quantity
TCC/Tag	Tagliabue Closed Cup
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time-weighted Average
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulating
WHMIS	

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