

MATERIAL SAFETY DATA SHEET

Curtis/GlenChem Corp.

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2000 Industrial Highway
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Product: **ACE**

Daytime Telephone: (610) 876-9906
24 Hour Emergency: CHEMTREC® (800) 424-9300

MSDS No.: G5554 - Rev 4.1 Date: 05/97
Replaces - Version 4.0 08/96
Reason: Name Change

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-- SECTION 01 - IDENTIFICATION AND INFORMATION --

Product or Trade Name ACE
Chemical Name/Synonym PROPRIETARY BLEND
Chemical Family..... ACIDIC CLEANING COMPOUND
Formula..... PROPRIETARY
Product Code G5554

HMIS
Hazard Rating: Legend:
Health:..... 3 0 - Least
Fire:..... 0 1 - Slight
Reactivity:..... 2 2 - Moderate
3 - High
4 - Extreme

Product Description: Acidic cleaning compound and metal etchant.

-- SECTION 02 - PHYSICAL DATA --

Boiling Point: > 210°F
Vapor Pressure: N/E / N/A (mmHg)
Vapor Density: > 1 (AIR=1)
Appearance: Clear water white liquid
pH neat: <1

Solubility in Water: Infinite
Specific Gravity: 1.04 (H₂O=1)
% Volatile by Volume: N/A (non-solvent)
Odor:..... Acrid
pH working solutions: 1.5-2.2 (varies w/ conc.)

-- SECTION 03 - HAZARDOUS COMPONENTS --

<u>CHEMICAL NAME</u>	<u>CAS #</u>	<u>% Range</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
hydrogen fluoride *	7664-39-3	5-15	TWA Ceiling Limit 3 ppm STEL - None	Ceiling Limit 3 ppm STEL - None
sulfuric acid *	7664-93-9	10-20	TWA : 1 mg/m ³ STEL: 3mg/m ³	TWA : 1 mg/m ³ STEL: 3mg/m ³
phosphoric acid *	7664-38-2	10-20	TWA : 1 mg/m ³ STEL: 3mg/m ³	TWA : 1 mg/m ³ STEL: 3mg/m ³
2-Butoxyethanol *	111-76-2	< 5	TWA: 25 ppm	TWA: 25 ppm
Inert and/or non-hazardous components and/or <1%	-----	Balance	-----	-----

Note: Material may contain trace amounts of ethylene oxide (75-21-8) in quantities less than 0.0001%.

* Component hazardous according to OSHA Hazard Communication Standard (29 CFR 1910.1200) or one or more state Right-To-Know lists.

-- SECTION 04 - FIRE AND EXPLOSION HAZARD DATA --

Flash Point: N/A (will not support combustion).
Extinguishing Media: Small Fire: CO₂, water fog, dry chemical; Large Fire: Alcohol-type or all-purpose-type foam.
Special Fire Fighting Procedures: Use self-contained breathing apparatus; water may be used to cool adjacent containers.

-- SECTION 05 - REACTIVITY DATA --

Stability: Stable.
Incompatibility: Strong oxidizers such as chlorine or chlorine release agents. Contact with reactive metals may produce flammable and/or explosive hydrogen-air mixtures.
Hazardous Decomposition Products: Carbon monoxide may form upon thermal degradation. High temperatures may produce explosive hydrogen gas
Hazardous Polymerization: Will not occur.

-- SECTION 06 - SPILL, LEAK, AND DISPOSAL PROCEDURES --

Small Spills: Absorb with sand or inert material; scoop up and dispose to proper container.
Large Spills: Prevent spread of spill by dyking. Salvage uncontaminated material if possible.
Absorb remainder of spill with inert material; scoop up and dispose to proper container.

DO NOT ALLOW SPILLS or RUNOFF TO CONTAMINATE STREAMS, LAKES, or RIVERS.
ALWAYS DISPOSE OF MATERIAL IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL CODES FOR THAT TYPE OF MATERIAL.

-- SECTION 07 - HEALTH HAZARD DATA --

EYE CONTACT: May cause conditions from irritation to burns. Severe irritation or chemical burn may occur if not irrigated immediately (within seconds of contact). Elevated temperatures increase chemical hazard as well as introduce a thermal hazard in all areas of contact.
SKIN CONTACT: Prolonged contact of dilute solutions may cause chemical burns of the skin. It may not produce an immediate sensation. Hydrogen fluoride component may penetrate skin and affect bone tissue before immediately burning or irritating skin.
INHALATION:..... Aspiration of fumes and mists of heated solutions cause burns of respiratory system.
INGESTION: Can cause severe corrosion of mucosal surfaces.
EFFECTS OF OVEREXPOSURE: Individuals with preexisting diseases of the lungs may have increased susceptibility to the toxicity of excessive exposures to fumes. Severe overexposure by contact may result in serious chemical burns. None of the ingredients contained in this product are considered carcinogens.

-- SECTION 08 - FIRST AID --

EYES: Flush with water for a minimum of 15 minutes (industry safety standard for all materials) separating eyelids with fingers. Seek medical attention if irritation persists.
SKIN:..... Flush with water; wash with soap and water after handling.
INHALATION:..... Remove to fresh air. Get medical assistance if irritation persists.
INGESTION: DO NOT INDUCE VOMITING - Seek medical attention. Give several glasses of water to drink to dilute. Never give anything by mouth to an unconscious person.

-- SECTION 09 - SPECIAL HANDLING INFORMATION --

VENTILATION:..... External preferred. Local exhaust sufficient if exposure limits are not exceeded. If misting is anticipated, provide suitable ventilation to maintain levels below established exposure limits.
RESPIRATORY PROTECTION: None normally required; NIOSH approved respirator for mist conditions.
PROTECTIVE CLOTHING: Chemical resistant gloves when mixing or handling. Protective gear sufficient to prevent personal contact.
EYE PROTECTION:..... Tight fitting or chemical workers goggles.

-- SECTION 10 - SPECIAL PRECAUTIONS AND REGULATORY INFORMATION --

HANDLING AND STORAGE: Do not breathe vapors or mist. Do not allow contact with eyes, or allow to contact skin. Wash contaminated clothing prior to re-use. Be mindful of contact with shoes and dispose if contaminated. Often, burning sensations are not immediately evident. Prolonged contact leads to more severe irritation or burns. Do not allow contact with chlorine or other oxidizers as toxic gases may be produced.

D.O.T.: Shipping Information: Shipping Name: Compounds, Cleaning Liquid, n.o.s., (hydrogen fluoride), 8, UN1760, PG II
 Hazard Class: 8, Corrosive Liquid
 Emergency Response: ERG - 154

Empty Containers: Do not re-use empty containers for storage of foodstuffs or potable water. For returnable drums or drums set aside for a reconditioner, empty each drum as completely as possible and fit bungs tightly with undamaged closures. D.O.T. regulations do not permit transport of open or partially filled containers.

TSCA - The ingredients in this material are listed on the TSCA Inventory.
SARA Title III Information (for hydrogen fluoride as a component of this material): A) Sections 311/312 - acute, reactive; B) Section 313 - Listed; C) Section 302 - Listed as an Extremely Hazardous Substance. Toxic Chemicals list; Hazard Classifications: Acute - Yes; Chronic - Yes; Reactivity - Yes; Pressure - No; Fire - No. Specific hazard is by contact with skin or eyes, as it is corrosive to body tissues.
IARC - Product is not carcinogenic.

Abbreviations Used in this Material Safety Data Sheet: < = Less Than; > = Greater Than; N/A = Not Applicable; N/E = Not Established; N/L = Not Listed; N/D = Not Determined; TWA = Time Weighted Average; STEL= Short Term Exposure Limit; PEL = Permissible Exposure Limit; NIOSH = National Institute of Occupational Safety & Health; OSHA = Occupational Safety & Health Administration; ACGIH = American Conference of Government and Industrial Hygienists; NTP = National Toxicology Program; IARC = International Agency for the Registration of Carcinogens; TSCA = Toxic Substance Control Act; SARA = Superfund Amendment Reauthorization Act; RQs = Reportable Quantities; CERCLA = Comprehensive Environmental Response Compensation and Liability Act; NRC = National Response Center; RCRA = Resource Recovery and Conservation Act.

The information herein is given in good faith, but no warranty, express or implied, is made.