



Revision Number: 005.0

Issue date: 09/10/2020

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** BONDERITE C-IC ALDOX V AERO  
ACID DEOXIDIZER known as TURCO  
ALDOX V

**IDH number:** 597543

**Product type/use:** Cleaners for Aeroplanes

**Restriction of Use:** None identified

**Region:** United States

**Company address:** Henkel Corporation  
One Henkel Way  
Rocky Hill, Connecticut 06067

**Contact information:**  
Telephone: +1 (860) 571-5100  
MEDICAL EMERGENCY Phone: Poison Control Center  
1-877-671-4608 (toll free) or 1-303-592-1711  
TRANSPORT EMERGENCY Phone: CHEMTREC  
1-800-424-9300 (toll free) or 1-703-527-3887  
Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**DANGER:** CONTAINS FLUORIDES. MAY CAUSE DELAYED BURNS (NOT IMMEDIATELY PAINFUL OR VISIBLE)! LONG TERM EXPOSURE TO FLUORIDES OVER YEARS MAY CAUSE FLUOROSIS!  
CONTAINS PRESERVATIVE(S): GLUTARAL  
TOXIC IF SWALLOWED OR IN CONTACT WITH SKIN  
CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.  
MAY CAUSE CANCER.

HAZARD CLASS	HAZARD CATEGORY
ACUTE TOXICITY ORAL	3
ACUTE TOXICITY DERMAL	3
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
CARCINOGENICITY	1A

### PICTOGRAM(S)



### Precautionary Statements

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves, clothing, eye and face protection.

**Response:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. Take off contaminated clothing.

**Storage:** Store locked up.

**Disposal:** Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

IDH number: 597543

Product name: BONDERITE C-IC ALDOX V AERO ACID DEOXIDIZER known as TURCO ALDOX V

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Ferric sulfate	10028-22-5	30 - 60
Hydrogen fluoride	7664-39-3	1 - 5
Sulfuric acid	7664-93-9	0.1 - 1
Nitric acid	7697-37-2	0.1 - 1

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. FIRST AID MEASURES

<b>Inhalation:</b>	If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist. If breathing is difficult, give oxygen. Trained personnel should administer 2.5% calcium gluconate through a nebulizer for 20 minutes.
<b>Skin contact:</b>	Remove contaminated clothing and footwear while rinsing the affected area with large amounts of running water for at least 15 minutes. GET IMMEDIATE MEDICAL ATTENTION. If iced solution of 0.13% aqueous Benzalkonium Chloride (Zephiran) or 2.5% calcium gluconate gel is available, rinsing may be limited to 5 minutes, with the soak solution or gel applied as soon as the rinsing is stopped. Gloves should be worn when applying the gel to prevent transfer of HF and secondary burns. If using calcium gluconate gel, it should be continuously re-applied and massaged into the affected area until pain has been relieved for at least 30 minutes. If Benzalkonium Chloride (Zephiran) or calcium gluconate gel is not available, rinsing must continue until medical treatment is provided.
<b>Eye contact:</b>	Immediately flush affected eye with large amounts of gently flowing water or 0.9% sterile saline solution for at least 15 minutes. Hold eyelid wide open. Get immediate medical attention. Eye flushing should continue during transportation to a doctor.
<b>Ingestion:</b>	Get immediate medical attention. Do not induce vomiting. Attempt immediate administration of a fluoride binding substance: milk, chewable calcium carbonate tablets or 4-8 ounces (120-240 ml) of milk of magnesia or a liquid antacid. Avoid large amounts of liquid as it may induce vomiting. Never give anything by mouth to an unconscious person.
<b>Symptoms:</b>	See Section 11.
<b>Notes to physician:</b>	Treatment of hypocalcemia associated with corrosive fluoride compounds exposure may be corrected by intravenous calcium gluconate or calcium chloride. Treatment of hypomagnesemia may be corrected by intravenous magnesium sulfate.

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear full protective clothing. Wear self-contained breathing apparatus.
<b>Unusual fire or explosion hazards:</b>	May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses. May react with metals to form flammable hydrogen gas.

**Hazardous combustion products:**

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen. Hydrogen fluoride.

## 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**Environmental precautions:**

Prevent further leakage or spillage if safe to do so. Contain spill. Ventilate area. Do not allow product to enter sewer or waterways. Isolate area. Keep unnecessary personnel away.

**Clean-up methods:**

Collect spilled material with an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Flush area with water to remove trace residue. Dispose of according to Federal, State and local governmental regulations.

## 7. HANDLING AND STORAGE

**Handling:**

Avoid contact with eyes, skin and clothing. Provide adequate ventilation. Avoid breathing vapors or mists of this product. Wash thoroughly after handling. Do not reuse the empty container.

**Storage:**

Keep the container tightly closed and in a cool, well-ventilated place. Store between 40°F and 100°F. (5° and 38°C).

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Ferric sulfate	1 mg/m3 TWA (as Fe)	None	None	None
Hydrogen fluoride	2 ppm Ceiling (as F) 0.5 ppm TWA (as F) (SKIN) (as F)	2.5 mg/m3 PEL (as F) 3 ppm TWA	None	None
Sulfuric acid	0.2 mg/m3 TWA Thoracic fraction.	1 mg/m3 PEL	None	None
Nitric acid	2 ppm TWA 4 ppm STEL	2 ppm (5 mg/m3) PEL	None	None

**Engineering controls:**

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

**Respiratory protection:**

If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

**Eye/face protection:**

Wear chemical goggles; face shield (if splashing is possible).

**Skin protection:**

Wear impervious gloves for prolonged contact. Use of impervious apron and boots are recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**

Liquid

**Color:**

dark brown

**Odor:**

Sharp

**Odor threshold:**

Not available.

**pH:**

< 2.0

**Vapor pressure:**

Not determined

**Boiling point/range:**

> 200 °F (> 93.3 °C)

**Melting point/ range:**

< 0 °C (< 32°F)

**Specific gravity:**

1.29

**Vapor density:**

Not determined

**Flash point:**

> 104 °C (> 219.2 °F) ; Estimated

<b>Flammable/Explosive limits - lower:</b>	Not applicable
<b>Flammable/Explosive limits - upper:</b>	Not applicable
<b>Autoignition temperature:</b>	Not applicable
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable
<b>Solubility in water:</b>	Completely soluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	Not applicable
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable at normal conditions.
<b>Hazardous reactions:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. May liberate hydrogen fluoride. Oxides of sulfur. Decomposes with heat to produce oxides of nitrogen.
<b>Incompatible materials:</b>	Alkalis.
<b>Reactivity:</b>	This product may react with strong acids, bases and oxidizing agents. This product may react with strong alkalies. This material will react with glass, concrete, certain metals, silica containing materials, rubber, leather, and many organics. Reacts with cyanides and sulfides to cause the release of poisonous gases.
<b>Conditions to avoid:</b>	Keep away from heat, ignition sources and incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

<b>Relevant routes of exposure:</b>	Skin, Inhalation, Eyes
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### Potential Health Effects/Symptoms

<b>Inhalation:</b>	Mists, vapors or liquid may cause severe irritation or burns. Contains fluorides. Exposure to fluorides over years may cause fluorosis.
<b>Skin contact:</b>	This product is severely irritating to the skin and may cause burns. Liquid or vapor can cause fluoride-type irritation or burns which may not be immediately painful or visible. Hydrofluoric acid will penetrate the skin and attack underlying tissue and bone. Large burns (over 25 square inches) may also cause hypocalcemia and other systemic effects which may be fatal. If this material is injected beneath the skin, regardless of amount injected, get immediate medical attention. Do not wait for symptoms to develop. Bonds skin and eyes in seconds. Highly reactive to water. (See Section 4 on first aid.)
<b>Eye contact:</b>	This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.
<b>Ingestion:</b>	Ingestion of small amounts of this product may result in potentially fatal hypocalcemia and systemic toxicity. Ingestion of large amounts of this product may result in fluoride poisoning including symptoms of calcification of the ligaments and severe bone changes making normal movements painful, mottling of the teeth, pulmonary fibrosis, anemia, anorexia, dental effects, and possibly death. Ingestion causes burns of the upper digestive and respiratory tracts. Contains fluorides. Exposure to fluorides over years may cause fluorosis.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Ferric sulfate	None	Eyes, Gastrointestinal, Irritant, Liver, Lung, Metabolic, Vascular
Hydrogen fluoride	None	Allergen, Blood, Bone Marrow, Cardiac, Central nervous system, Corrosive, Irritant, Kidney, Liver, Lung, Muscle, Nervous System, Respiratory, Teeth
Sulfuric acid	None	Carcinogen, Corrosive, Irritant
Nitric acid	None	Irritant, Corrosive, Lung, Teeth

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Ferric sulfate	No	No	No
Hydrogen fluoride	No	No	No
Sulfuric acid	Known To Be Human Carcinogen.	Group 1	No
Nitric acid	No	No	No

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Harmful to aquatic organisms.

## 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Dispose of according to Federal, State and local governmental regulations.

**Hazardous waste number:** This product, if discarded, may be characterized as a RCRA corrosive waste, D002. This product contains a component or components identified as hazardous under 40 CFR 261.24. U134: Hydrogen fluoride

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

### U.S. Department of Transportation Ground (49 CFR)

<b>Proper shipping name:</b>	Corrosive liquids, toxic, n.o.s. (Hydrofluoric acid, Nitric acid)
<b>Hazard class or division:</b>	8 (6.1)
<b>Identification number:</b>	UN 2922
<b>Packing group:</b>	II
<b>DOT Hazardous Substance(s):</b>	Ferric sulfate, Hydrofluoric acid

**International Air Transportation (ICAO/IATA)**

**Proper shipping name:** Corrosive liquid, toxic, n.o.s. (Hydrofluoric acid, Nitric acid)  
**Hazard class or division:** 8 (6.1)  
**Identification number:** UN 2922  
**Packing group:** II

**Water Transportation (IMO/IMDG)**

**Proper shipping name:** CORROSIVE LIQUID, TOXIC, N.O.S. (Hydrofluoric acid, Nitric acid)  
**Hazard class or division:** 8 (6.1)  
**Identification number:** UN 2922  
**Packing group:** II  
**Additional information:** IMDG-Code: Segregation group 1- Acids

## 15. REGULATORY INFORMATION

**United States Regulatory Information**

**TSCA 8 (b) Inventory Status:** All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.

**TSCA 12 (b) Export Notification:** None above reporting de minimis

**CERCLA/SARA Section 302 EHS:** Hydrogen fluoride (CAS# 7664-39-3).  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health  
**CERCLA/SARA Section 313:** This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Hydrogen fluoride (CAS# 7664-39-3).  
**CERCLA Reportable quantity:** Ferric sulfate (CAS# 10028-22-5) 1,000 lbs. (454 kg)  
Hydrogen fluoride (CAS# 7664-39-3) 100 lbs. (45.4 kg)

**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer.

**Canada Regulatory Information**

**CEPA DSL/NDSL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

## 16. OTHER INFORMATION

**This safety data sheet contains changes from the previous version in sections:** New Safety Data Sheet format.

**Prepared by:** Regulatory Affairs

**Issue date:** 09/10/2020

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