

DeOx 710 Non-Chromated Deoxidizer

SDS Number: 103

Revision Date: 12/26/2014

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1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

ABCO Products of Sacramento
 P.O. Box 188469
 Sacramento, CA 95818

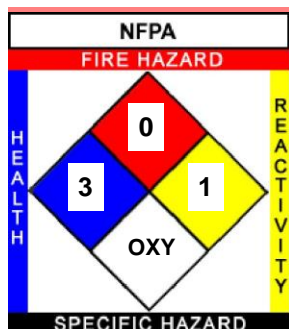
Contact: ABCO Products of Sacramento
Phone: +1-916-447-9931
Fax: +1-916-443-7466

Product Name: DeOx 710 Non-Chromated Deoxidizer
Revision Date: 12/26/2014
Version: 1
SDS Number: 103
Common Name: Acid Deoxidizer
CAS Number: MIXTURE
Product Code: ABCO J-35
Chemical Family: Inorganic Acid Salts
Chemical Formula: *** PROPRIETARY ***
Product Use: Acid Metal Deoxidizer
Emergency Phone: +1-800-424-9300 (CHEMTREC)

2 HAZARDS IDENTIFICATION

NFPA:
 HMIS III:

Health = 3, Fire = 0, Reactivity = 1
 H*3/F0/PH2



HMIS III	
HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARDS	2
PERSONAL PROTECTION F Safety Glasses, Gloves, Apron, Dust Respirator	

PERSONAL PROTECTION INDEX													
A		G											
B		H											
C		I											
D		J											
E		K											
F		X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions										
A		n		O		p		q		r		S	
t		u		w		y		z		Additional information			

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GHS Signal Word:
DANGER

GHS Hazard Pictograms:



GHS Classifications:

Physical, Oxidizing Solids, 3
Physical, Corrosive to Metals, 1
Health, Acute toxicity, 3 Oral
Health, Acute toxicity, 3 Dermal
Health, Skin corrosion/irritation, 2
Health, Serious Eye Damage/Eye Irritation, 1
Health, Acute toxicity, 3 Inhalation

GHS Phrases:

H272 - May intensify fire; oxidizer
H290 - May be corrosive to metals
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H315 - Causes skin irritation
H318 - Causes serious eye damage
H331 - Toxic if inhaled

GHS Precautionary Statements:

P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
P220 - Keep/Store away from clothing/combustible materials.
P221 - Take any precaution to avoid mixing with combustibles.
P234 - Keep only in original container.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P262 - Do not get in eyes, on skin, or on clothing.
P264 - Wash skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P322 - Specific measures (see supplemental first aid instructions on this label).
P332+313 - If skin irritation occurs: Get medical advice/attention.
P337+313 - If eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P370+378 - In case of fire: Use dry sand, dry chemical, carbon dioxide or alcohol-resistant foam for extinction.
P391 - Collect spillage. Hazardous to the aquatic environment.

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P403+233 - Store in a well ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container to an approved waste disposal plant.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas #	Percentage	Chemical Name
10028-22-5	45-55%	Sulfuric acid, iron(3+) salt (3:2)
7631-99-4	20-30	Nitric acid sodium salt
7681-38-1	0-10%	Sulfuric acid, monosodium salt
16893-85-9	0-10%	Silicate(2-), hexafluoro-, disodium
N/A	0-35%	Proprietary, non-hazardous, non-regulated

4 FIRST AID MEASURES

Inhalation: If symptoms develop, move victim to fresh air. Obtain medical attention. Give oxygen or artificial respiration if needed. Lie victim down in the recovery position; cover to keep warm. Show this Safety Data Sheet to the physician in attendance.

Skin Contact: Get immediate medical attention. Remove contaminated clothing immediately; wash before reuse. Promptly flush skin with water until all chemical is removed. This material can be absorbed through the skin with resultant toxic effects. Show this Safety Data Sheet to the physician in attendance.

Eye Contact: Get immediate medical attention. Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Show this Safety Data Sheet to the physician in attendance.

Ingestion: Call a physician immediately. Take victim immediately to hospital. Show this Safety Data Sheet to the physician in attendance. Prevention of absorption of the Fluoride ion can be obtained by giving a source of Calcium or Magnesium.

If victim is conscious:

If swallowed, rinse mouth with water (only if the person is conscious). Give to drink one of the following: 3-4 glasses of milk, chewable calcium carbonate tablets, Milk of Magnesia or a 1% aqueous Calcium Gluconate solution. Do NOT induce vomiting. Artificial respiration and/or oxygen may be necessary.

If victim in unconscious, but breathing:

Artificial respiration and/or oxygen may be necessary.

General advice:

Show this Safety Data Sheet to the doctor in attendance. The primary risk of toxic exposure is through ingestion. Conditions such as hypocalcemia, hypomagnesemia, cardiac arrhythmias and hyperalkalemia should be monitored for, since they can occur after exposure. Renal dialysis may be necessary in some cases.

Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see Section 2) and/or Section 11.

Indication of any immediate medical attention and special treatment needed:

No data available.

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5 FIRE FIGHTING MEASURES

Flammability:	No data available
Flash Point:	DNA
Flash Point Method:	DNA
Burning Rate:	No data available
Autoignition Temp:	No data available
LEL:	DNA
UEL:	DNA

Extinguishing Media:

Carbon Dioxide
Alcohol-Resistant Foam
Dry Chemical
Dry Sand

Special Hazards Arising From the Substance or Mixture:

Hydrogen Fluoride
Iron Oxides
Nitrogen Oxides (NO_x)
Silicon Oxides
Sodium Oxides
Sulfur Oxides

Advice for Firefighters:

Firefighters should wear full-face, positive-pressure respirators.

Further Information:

If incinerated, may release toxic fumes.
Gives off Hydrogen by reaction with metals. Hydrogen is flammable and potentially explosive. Use caution.
When Nitric acid sodium salt decomposes, it releases Oxygen, which may intensify fires. Use caution.
Do NOT use water spray to cool unopened containers, as wet or damp material may start to decompose and release heat causing any nearby combustibles to catch fire. If containers begin to discolor or vent violently, emergency responders should evacuate area.
See Section 7 for more information on safe handling.
See Section 8 for more information on personal protection equipment.
See Section 13 for disposal information.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment, including dust respirator.
Avoid dust formation.
Avoid breathing dust.
Keep from contacting skin or eyes.
Avoid breathing vapors, mist or gas.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.

Environmental precautions:

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Prevent further release (leakage/spillage) if safe to do so.

Do not allow product to enter drains.

Do not allow to drain to environment.

Methods and materials for containments and cleaning up:

Pick up and arrange disposal without creating dust.

Sweep up, shovel or collect spillage with an electrically protected vacuum cleaner.

Place contaminated material into suitable, closed containers for disposal.

Dispose of contaminated material according to Section 13.

After spillage has been collected, area may be flushed with water or wet-brushed.

Ensure adequate ventilation.

Reference to other sections:

Comply with federal, state and local regulations on reporting spills.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on proper disposal.

7

HANDLING AND STORAGE

Handling Precautions:

Avoid formation of dust or aerosols.

Avoid breathing vapors, mist or dust.

Avoid contact with eyes, skin, or clothing.

Use approved, plastic containers only - do not store in metal containers.

Keep containers closed when not in use.

Do not expose containers to open flame, excessive heat, or direct sunlight.

Do not puncture or drop containers.

Handle with care and avoid spillage on the floor.

Keep material out of reach of children.

Keep material away from incompatible materials.

Do not use corrosive-sensitive materials for handling product.

Wash thoroughly after handling.

Ensure adequate ventilation.

Storage Requirements:

Keep away from heat, sparks and flames.

Do not store in direct sunlight.

Store away from strong acids, strong bases, strong oxidizing agents, strong reducing agents, metals, powdered metals, organic materials, Alkali metals, Alkaline earth metals, Cyanides, Thiocyanates, water and steam.

8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

Personal Protective Equip:

Eye/face protection:

When using material use safety glasses, gloves, apron and dust respirator according to HMIS PP, F. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection:

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Handle with gloves made from Viton, Nitrile, PVC or Buna rubber. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.

Body Protection:

Chemically resistant safety glasses, gloves, apron and dust respirator are recommended. Type of protective equipment should be selected based on concentration amount and conditions of use of this material.

Respiratory protection:

Full-face dust respirator is highly recommended as a backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds.

Control of environmental exposure:

Prevent leakage or spillage if safe to do so. Do not let material enter drains.

Components with workplace control parameters:

Component(s): Sulfuric acid, iron(3+) salt (3:2); Silicate(2-), hexafluoro, disodium
 CAS No(s): 10028-22-5; 16893-85-9
 USA OSHA Permissible Exposure Limit - Construction Industry (TWA): 1 mg/m³ (as Fe)
 USA OSHA Permissible Exposure Limit - Maritime (TWA): 1 mg/m³ (as Fe)
 USA OSHA Permissible Exposure Limit (TWA): 2.5 mg/m³ (as F)
 USA ACGIH (TWA/TLV): 1 mg/m³ (as Fe)
 USA ACGIH (TWA/TLV, 8 hours): 2.5 mg/m³ (as F)
 USA ACGIH (STEL/TLV): 2.5 mg/m³ (as F)
 USA NIOSH Recommended Exposure Limits (TWA/TLV): 1 mg/m³ (as Fe)
 USA NIOSH Recommended Exposure Limits (TWA/TLV, 10 hours): 2.5 mg/m³ (as F)

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Red, Granular Powder	Odor:	Characteristic
Physical State:	Solid	Molecular Formula:	MIXTURE
Odor Threshold:	Not determined	Solubility:	100%
Particle Size:	Not determined	Softening Point:	Not determined
Spec Grav./Density:	Not determined	Percent Volatile:	DNA
Viscosity:	Not determined	Heat Value:	Not determined
Sat. Vap. Conc.:	DNA	Freezing/Melting Pt.:	Not determined
Boiling Point:	Not determined	Flash Point:	DNA
Flammability:	(solid, gas): Not determined	Octanol:	DNA
Partition Coefficient:	Not determined	Vapor Density:	(air = 1): DNA
Vapor Pressure:	(mm Hg @ 20 °C, air = 1): DNA	VOC:	DNA
pH:	@ 1%: < 1.0	Bulk Density:	Not determined
Evap. Rate:	DNA	Auto-Ignition Temp:	Not determined
Molecular weight:	MIXTURE	UFL/LFL:	DNA
Decomp Temp:	Not determined		

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10 STABILITY AND REACTIVITY

Stability:	Product is stable under normal conditions.
Conditions to Avoid:	Incompatibilities, flames, ignition sources.
Materials to Avoid:	Strong acids, strong bases, strong oxidizing agents, strong reducing agents, metals, powdered metals, organic materials, Alkali metals, Alkaline earth metals, Cyanides, Thiocyanates, water and steam.
Hazardous Decomposition:	Hydrogen Fluoride, Iron Oxides, Nitrogen Oxides (NO _x), Silicon Oxides, Sodium Oxides and Sulfur Oxides.
Hazardous Polymerization:	Will not occur.

11 TOXICOLOGICAL INFORMATION

Component(s): Sulfuric acid, iron(3+) salt (3:2); Nitric acid sodium salt; Sulfuric acid, monosodium salt; Silicate(2-), hexafluoro-, disodium

CAS No(s): 10028-22-5; 7631-99-4; 7681-38-1; 16893-85-9

Acute Toxicity:

LD50 Oral - Rat: 125 mg/kg

LD50 Oral - Rabbit: 125 mg/kg

LD50 Oral - Mouse: 70 mg/kg

LD50 Intraperitoneal - Mouse: 168 mg/kg

LD50 - Intravenous - Mouse: 175 mg/kg

LC50 Inhalation - Rat: 1,814 mg/L

Skin Corrosion/Irritation: Irritating to skin.

Serious Eye Damage/Eye Irritation: Rabbit eyes - Risk of serious damage to eyes.

Respiratory or Skin Sensitation: No data available.

Germ Cell Mutagenicity: No data available.

Carcinogenicity: Oral - Rat: Tumorigenic agent by RTECS criteria (liver tumors, testicular tumors).

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or OSHA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive Toxicity: Oral - Mouse (male): Paternal effects (spermatogenesis).

Specific Target Organ Toxicity - Single Exposure: No data available.

Specific Target Organ Toxicity - Repeated Exposure: No data available.

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Aspiration Hazard: No data available.

Additional Information:

Component: Sulfuric acid, iron(3+) salt (3:2); RTECS: NO8505000

Component: Nitric acid sodium salt; RTECS: WC5600000

Component: Sulfuric acid, monosodium salt; RTECS: VZ1860000

Component: Silicate(2-), hexafluoro-, disodium; RTECS: VV8410000

12**ECOLOGICAL INFORMATION**

Component(s): Sulfuric acid, iron(3+) salt (3:2); Nitric acid sodium salt; Sulfuric acid, monosodium salt; Silicate(2-), hexafluoro-, disodium

CAS No(s): 10028-22-5; 7631-99-4; 7681-38-1; 16893-85-9

Toxicity:

Toxicity to fish:

LC50 - Salmo gairdneri: 2.7 - 4.7 mg/l (96 h, Fluorides)

LC50 - Gambusia affinis (Mosquito Fish): 37.2 mg/l (24 h)

LC50 - Gambusia affinis (Mosquito Fish): 37.2 mg/l (96 h)

LC50 - Lepomis macrochirus (Bluegill): 1.0 mg/l (96 h)

LC50 - Menidia beryllina (Inland Silverside): 160 mg/l (96 h)

Toxicity to daphnia and other aquatic invertebrates (salt water):

EC50 - Crustaceans, Mysidopsis: 10.5 mg/l (96 h, Fluorides)

Toxicity to daphnia and other aquatic invertebrates (fresh water):

EC50 - Daphnia magna (Water Flea): 29 mg/l (48 h, Fluorides)

NOEC - Saccostrea commercialis (Rocl Oyster): 0.10 - 0.20 mg/l (48 h)

Toxicity to algae:

EC50 - Algae, Scenedesmus sp.: 43 mg/l (96 h, Fluorides)

EC50 - Scenedesmus subspicatus (Green Algae): 10 mg/l (168 h)

Persistence and Degradability:

No data available.

Bioaccumulative potential:

No data available.

Mobility in Soil:

No data available.

Results of PBT and vPvB assessment:

Not required/conducted.

Other Adverse Effects:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

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13 DISPOSAL CONSIDERATIONS

Product: Hazardous wastes shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

14 TRANSPORT INFORMATION

UN #: UN 3087, Class: 5.1 (6.1), Proper Shipping Name: Oxidizing solid, toxic, n.o.s. (containing Sodium Nitrate, Sodium Silicofluoride)

DOT (US)

UN Number: 3087

Class: 5.1 (6.1)

Packing Group: III

ERG #: 141

Proper Shipping Name: Oxidizing solid, toxic, n.o.s. (containing Sodium Nitrate, Sodium Silicofluoride)

Marine Pollutant: No

Poison Inhalation Hazard(s): No

IMDG

UN Number: 3087

Class: 5.1 (6.1)

Packing Group: III

EMS-No: F-A, S-Q

Proper Shipping Name: Oxidizing solid, toxic, n.o.s. (containing Sodium Nitrate, Sodium Silicofluoride)

Marine Pollutant: No

IATA

UN Number: 3087

Class: 5.1 (6.1)

Packing Group: III

ERG #: 141

Proper Shipping Name: Oxidizing solid, toxic, n.o.s. (containing Sodium Nitrate, Sodium Silicofluoride)

Marine Pollutant: No



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15 REGULATORY INFORMATION

COMPONENT / (CAS/PERC) / CODES

*Sulfuric acid, iron(3+) salt (3:2) (10028225 45-55%) CERCLA, CSWHS, MASS, NJHS, PA, TSCA

*Nitric acid sodium salt (7631994 20-30%) MASS, NJHS, PA, SARA311/312, SARA313, TSCA

*Sulfuric acid, monosodium salt (7681381 0-10%) NJHS, PA, SARA311/312, TSCA

*Silicate(2-), hexafluoro-, disodium (16893859 0-10%) MASS, NJHS, PA, SARA311/312, TSCA

REGULATORY KEY DESCRIPTIONS

CERCLA = Superfund clean up substance
CSWHS = Clean Water Act Hazardous substances
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
PA = PA Right-To-Know List of Hazardous Substances
SARA311/312 = SARA 311/312 Toxic Chemicals
SARA313 = SARA 313 Title III Toxic Chemicals
TSCA = Toxic Substances Control Act

16 OTHER INFORMATION

Disclaimer:

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that ABCO Products of Sacramento believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of ABCO Products of Sacramento's control, ABCO Products of Sacramento makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.

Preparation Information:

GHS Conversion Services
www.ghsconversionservices.com
(669) 236-0304