



Material Safety Data Sheet
Conditioning reagent, ASTM D516-90

Section 1 - Chemical Product and Company Identification

MSDS Name:

Conditioning reagent, ASTM D516-90

Catalog Numbers:

LC13320

Synonyms:

Company Identification:

LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
67-63-0	Isopropyl alcohol	20
7647-01-0	Hydrogen chloride	2.2
7647-14-5	Sodium chloride	15
56-81-5	Glycerin	10

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless

Warning! May cause eye irritation and possible burns. May cause skin irritation.

Target Organs: none known.

Potential Health Effects



Material Safety Data Sheet

Conditioning reagent, ASTM D516-90

Eye:

Vapors are irritating to the eye, liquid contact may result in clouding of the cornea, erosion, up to total corneal opacification and loss of the eye. 2% aqueous solutions applied to human eyes for seconds were without significant injury. Solutions of 0.25N-1N causes scarring of rabbit cornea, injury at pH less than 3. Irritation, lacyramation, possible burns with permanent corneal damage.

Skin:

Skin may turn brown-yellow. Deep burns are slow to heal and scarring may occur. Narcosis with nausea, vomiting, hypotension, and inhalation symptoms.

Ingestion:

Preceding symptoms plus abdominal pain, uremia, diuresis, oliguria and coma. Death may occur from respiratory paralysis. Burns, perforation, and in severe cases circulatory collapse leading to renal, liver or heart failure.

Inhalation:

Above 5ppm exposure ulceration of the respiratory tract with bronchitis, pneumonia, palpitations, dental erosion, and perforation occurring; 6-8hr latency period can occur. Acute burning of nose, throat with coughing, choking, dizziness, difficulty swallowing. Frothy sputum, cyanosis, with circulatory shock, asphyxiation, gastric hemorrhage, and death occurring from severe exposure. Dizziness, incoordination, headache, stupor, nausea, hematemeses, hypotension, anemia, narcosis, areflexia, depressed respiration leading to coma in severe cases.

Chronic:

Dermatitis, conjunctivitis with corneal damage may occur. Dental erosion, jaw necrosis, respiratory disease (bronchitis, pneumonitis), dermatitis, conjunctivitis (with possible corneal scarring, loss of vision), fever.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once. Cover burns with loose sterile non-medicated bandages.

Skin:

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes. Cover burns with a dry sterile bandage (secure, not tight).

Ingestion:

Get medical aid at once. If vomiting occurs, keep head lower than hips to prevent aspiration. If victim is conscious, give 2-4 glasses of water to dilute acid.

Inhalation:

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust. Vapors may burn.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.



Material Safety Data Sheet

Conditioning reagent, ASTM D516-90

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Not published.

CAS # 67-63-0 health-1; flammability-3; reactivity-0

CAS# 7647-01-0: Not published.

CAS# 7647-14-5: Not published.

CAS # 56-81-5 health-1; flammability-1; reactivity-0

Explosion Limits:

Lower: Upper:

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Shut off ignition source, avoid vapors. Isolate, ventilate spill area. Label reclaimed spill material as flammable. Area may be washed down with flooding amounts of water - do not allow vapors to accumulate in drains, sewers, low level enclosures or wells.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Ground and bond containers when transferring material. Avoid breathing dust, vapor, mist, or gas.

Storage:

Store capped at room temperature. Protect from heat and incompatibles. Store capped as a flammable liquid in safety cabinet or vault that is ventilated.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Provide local exhaust or general dilution ventilation.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Isopropyl alcohol	(400 ppm) TWA;(500ppm) STEL	400 ppm TWA; 980 mg/m3 TWA	400 ppm TWA; 980 mg/m3 TWA;
Hydrogen chloride	None of the components are on this list.	None of the components are on this list.	C 5 ppm; C 7 mg/m3;
Sodium chloride	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Glycerin	10 mg/m3 TWA	no established RELs - see Appendix D	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction);



Material Safety Data Sheet

Conditioning reagent, ASTM D516-90

OSHA Vacated PELs

Isopropyl alcohol: 400 ppm TWA; 980 mg/m³ TWA
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Isopropyl alcohol: 400 ppm TWA; 980 mg/m³ TWA
Glycerin: total dust: 10 mg/m³ TWA; respirable fraction: 5 mg/m³ TWA

Personal Protective Equipment

Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Firefighting - SCBAF:PD,PP 1000ppm - CCROVF.
5000ppm - GMOV.
20,000ppm - MOVfb/SAF/SCBAF.
Escape-GMOV/SCBA

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color: colorless

Odor: slight alcohol-like

pH: No information found.

Vapor Pressure: No information found.

Vapor Density: No information found.

Evaporation Rate: No information found.

Viscosity: No information found.

Boiling Point: No information found.

Freezing/Melting Point: No information found.

Decomposition Temperature: No information found.

Solubility in water: Soluble.

Specific Gravity/Density: No information found.

Molecular Formula: No information found.

Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials

Oxidizing agents, alkalies.



Material Safety Data Sheet

Conditioning reagent, ASTM D516-90

Hazardous Decomposition Products

Hydrogen chloride, oxides of carbon.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 67-63-0: NT8050000.

CAS# 7647-01-0: MW4025000.

CAS# 7647-14-5: VZ4725000.

CAS# 56-81-5: MA8050000.

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 67-63-0:

Oral, mouse: LD50 = 3600 mg/kg

Oral, rabbit: LD50 = 6410 mg/kg

Oral, rat: LD50 = 5045 mg/kg

Skin, rabbit: LD50 = 12800 mg/kg.

CAS# 7647-01-0:

Inhalation, mouse: LC50 = 1108 ppm/1H

Inhalation, rat: LC50 = 3124 ppm/1H

Oral, rabbit: LD50 = 900 mg/kg.

CAS# 7647-14-5:

Oral, mouse: LD50 = 4 gm/kg

Oral, rat: LD50 = 3 gm/kg.

CAS# 56-81-5:

Oral, mouse: LD50 = 4090 mg/kg

Oral, rabbit: LD50 = 27 gm/kg

Oral, rat: LD50 = 12600 mg/kg.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 67-63-0

ACGIH: Not listed.

California: Not listed.

NIOSH: Not listed.

NTP: Not listed.

OSHA: Not listed.

IARC: Group 3

CAS# 7647-01-0

ACGIH: Not listed.

California: Not listed.

NIOSH: Not listed.

NTP: Not listed.

OSHA: Not listed.

IARC: Group 3

CAS# 7647-14-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 56-81-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.



Material Safety Data Sheet
Conditioning reagent, ASTM D516-90

Epidemiology:
Teratogenicity:
Reproductive:
Mutagenicity
Neurotoxicity

Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

US DOT

Shipping Name: Hydrochloric acid solution

Hazard Class: 8

UN Number: UN1789

Packing Group: PG III

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 67-63-0 is listed on the TSCA Inventory.

CAS# 7647-01-0 is listed on the TSCA Inventory.

CAS# 7647-14-5 is listed on the TSCA Inventory.

CAS# 56-81-5 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ)

CAS# 7647-01-0: final RQ = 5000 pounds (2270 kg)

CERCLA/SARA Section 313

This material contains Isopropyl alcohol (CAS# 67-63-0, 20%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

This material contains Hydrogen chloride (CAS# 7647-01-0, 2.2%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous

CAS# 7647-01-0 is considered highly hazardous by OSHA.

US State



Material Safety Data Sheet

Conditioning reagent, ASTM D516-90

State Right to Know

Isopropyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

Hydrogen chloride can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

Glycerin can be found on the following state Right-to-Know lists: Pennsylvania, Minnesota, Massachusetts.

California Regulations

European/International Regulations

Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 67-63-0 is listed on Canada's DSL List.

CAS# 7647-01-0 is listed on Canada's DSL List.

CAS# 7647-14-5 is listed on Canada's DSL List.

CAS# 56-81-5 is listed on Canada's DSL List.

Canada Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 67-63-0 is listed on Canada's Ingredient Disclosure List.

CAS# 7647-01-0 is listed on Canada's Ingredient Disclosure List.

CAS# 7647-14-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 56-81-5 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: August 23, 1998

Revision Date: March 13, 2004

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