



Safety Data Sheet

Better Chemistry. Better Business

BOND GUARD ZRC-444

Revised: 1/23/25

1 IDENTIFICATION

Product Name: BOND GUARD ZRC-444

Product Code :2204918

Recommended use of the chemical and restrictions on use:Industrial applications

Hubbard-Hall Inc.

563 South Leonard Street

Waterbury, CT 06708

Telephone: 203-756-5521

Fax number: 203-756-9017

Emergency Phone Number

CHEMTREC: 1 (800) 424-9300

International: 1 (703) 527-3887

2 HAZARDS IDENTIFICATION



Signal Word: WARNING

Hazard Category: Skin Corrosion/Irritation Hazard Category 2

Eye Damage/Irritation Hazard Category 2A

Hazard Statements: Causes skin irritation.

Causes serious eye irritation.

Prevention: Wash skin thoroughly after handling.

Wear protective gloves, chemical protective clothing, eye protective goggles and face shield for face protection.

Response: If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get Medical advice/attention.

Specific treatment - refer to poison center or doctor for advice.

Immediately call poison center or doctor and explain the type of exposure to the chemical(s) and provide the name of the chemical(s).

3 COMPOSITION INFORMATION

Chemical Name	Common Name And Synonyms	CAS No. and other Unique identifiers	Concentration %
Fluorozirconic acid	-	12021-05-3	1-10%
2-Amino-2-methyl-1-propanol	-	124-68-5	1-10%
Ethoxylated Propoxylated Alcohol		68603-25-8	1-10%
Hydroxylamine Sulfate		10039-54-0	0-1%

4 FIRST AID

After Inhalation:

Remove exposed person to fresh air and support breathing as needed.

After Skin Contact:

Immediately remove contaminated clothing under a safety shower. Flush all affected areas with large amounts of water for 15 minutes. DO NOT attempt to neutralize with chemical agents. Obtain medical advice.

After Eye Contact:

Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Call a physician or poison control center immediately.

After Ingestion:

Call a physician or poison control center immediately. Do not induce vomiting. Immediately rinse mouth and drink plenty of water. If vomiting occurs, keep head low so that the stomach content doesn't get into the lungs. Never give anything by mouth to an unconscious person. Do not use mouth-to-mouth method if victim ingested the substance.

Most Important Symptoms/Effects**Inhalation:**

Symptoms may include irritation to the nose, throat and upper respiratory tract.

Eye:

Adverse symptoms may include the following: Symptoms may include redness, pain, blurred vision, eye burns and permanent eye damage.

Skin:

Adverse symptoms may include the following: May cause redness, pain and severe skin burns.

Ingestion:

Adverse symptoms may include the following: Symptoms may include severe burns of the mouth, throat and stomach. Ingestion of large quantities may cause gastrointestinal irritation, vomiting and diarrhea.

5 FIRE FIGHTING MEASURES

Suitable and Unsuitable extinguishing media:

Will not burn or support combustion. Use extinguishing media appropriate for surrounding fire, such as water spray, dry chemical, foam or carbon dioxide.

Special protective equipment and precautions for firefighter

Fire fighters should enter area only if they are protected from all contact with the material. Full protective clothing, including self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms, and waist, should be worn. No skin surfaces should be exposed.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, & Emergency Proc

Wear chemical goggle, gloves and face shield and protective clothing.

Prevent spilled product from drains, sewers, waterways and soil.

Methods and Materials for containment & cleaning up: Absorb the chemical onto sand, vermiculite, or any other non-combustible absorbent, and collect into containers for later disposal.

7 HANDLING AND STORAGE

Precautions for safe handling: Avoid breathing dust, fumes, gas, mist, vapors and sprays.
Wash hands thoroughly after handling.
Do not get in eyes, or on skin, or on clothing.

Conditions for safe storage, inc any incompatibilities: Store locked up
Store in properly sealed and labeled containers. Do not store outside.
Store in corrosive resistant container.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std.	TWA-8hrs	STEL - 15 min.
Fluorozirconic acid	ACGIH	2.5 mg/m ³ as F	-
2-Amino-2-methyl-1-propanol	Not established		
Ethoxylated Propoxylated Alcohol	Not established		
Hydroxylamine Sulfate	Not established		

ACGIH - American Control of Governmental Hygenists
OSHA - Occupational Safety and Health Administration

Ventilation: Use local exhaust to keep personal exposures below the OSHA Permissible Exposure Limit(s) (PEL) or the ACGIH threshold Limit Values (TLV)Time Weight Average (TWA).

Respiratory Protection: Use protection if misting of product is possible

Protective Gloves: Acid resistant rubber.

Eye Protection: Wear chemical safety goggles & full face shield

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear Colorless Liquid
Odor: Mild odor
Odor Threshold: N/A
PH: 5
Melting Point/Freezing Point: NA
Initial Boiling Point and Boiling Range: >212 °F
Flash Point: N/A
Evaporation Rate: NA
Flammability (solid, gas): NON-FLAMMABLE
Upper/Lower flammability or explosive limits: non-flammable
Vapor Pressure: NA
Vapor Density: NA
Relative Density: 1.03
Solubility (ies): 100%

Partition Coefficient; n-octanol/water:	NA
Auto-ignition Temperature:	N/A
Decomposition Temperature:	NA
Viscosity:	NA
VOC Content	0%

10 STABILITY AND REACTIVITY

Reactivity:	No specific test data related to reactivity available to this product or its ingredients.
Chemical Stability:	Stable under normal conditions Corrosive in presence of steel
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur.
Conditions to Avoid:	Extreme humidity, excess heat.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decomposition Products:	Carbon Dioxide,Hydrogen Fluoride,Nitrogen Oxides,Sulfur Oxides.

11 TOXICOLOGICAL INFORMATION

Oral Administration:	Not established for this product
Immediate effects:	Irritation or burns to skin, eyes and respiratory system
Cancer Hazard:	Not listed by IARC, NTP, OSHA, ACGIH
Routes of Exposure	Eyes, Skin, Inhalation, Ingestion

12 ECOLOGICAL INFORMATION

Persistence and Degradability:	Not Available
Bioaccumulation potential:	Not known
Soil/Sediment Result:	No data available
Other adverse effects(such as hazardous to the ozone layer):	Not known

13 DISPOSAL CONSIDERATION

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

14 TRANSPORT INFORMATION

UN Number:	
UN Proper Shipping Name:	NOT DOT REGULATED
Transport Hazard Class (es):	
Packing Group:	
ERG:	

15 REGULATORY INFORMATION

HMIS: Health: 1 Flammability: 0 Reactivity: 1

Sara Hazard Classification	The chemicals in this product are not subject to SARA Title III , Section 313 Reporting Requirements.
Proposition 65	No Proposition 65 listed components in this formula

**TSCA Inventory
Status**

All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements .

16 OTHER INFORMATION

Disclaimer: The information is based on our knowledge to date but does not constitute an assurance of product properties and does not imply a legal contractual relationship.