

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Brenntag Blend #2
Manufacturer	Sentury Reagents, Inc. 2515 Commerce Dr. Rock Hill, SC 29730
Telephone	803-327-6880
Fax	803-327-3872
Emergency Phone # and International #	PERS: 800-633-8253 011-801-629-0667
Account	10613

2. HAZARDS IDENTIFICATION

OSHA Hazards

Target Organ Effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Corrosive, Oxidizer

Target Organs:

Liver, Kidneys, Lungs, Teeth, Cardiovascular System

GHS Classification

Acute Toxicity, Oral (Category 2)
Acute Toxicity Inhalation (Category 2)
Acute Toxicity Dermal (Category 3)
Skin Corrosion (Category 1A)
Serious Eye Damage (Category 1)

GH3 Label elements, including precautionary statements

Pictogram



Signal word DANGER

Hazard statement(s)

H300	Fatal if swallowed
H311	Toxic in contact with skin
H330	Fatal if inhaled
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

Precautionary statement(s)

P260	Do not breathe fumes/vapours/mist/spray.
P264	Wash hands, face, protective equipment after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well ventilated area.
P280	Wear protective gloves/clothing/eye and face protection.
P284	Wear respiratory protection.
P301+330+331+310	If swallowed: Rinse mouth. DO NOT induce vomiting. Immediately call a poison center/doctor.
P302+352+312+310	If on skin, wash with plenty of water. Immediately call a poison center/doctor.
P304+340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P361+364	Take off immediately all contaminated clothing and wash before reuse.
P305+351+338	If in eyes: Wash with plenty of water. Remove contact lenses if present and easy to do. Continue rinse.
P403+233	Keep container tightly closed and store in a well ventilated place.
P501	Dispose of contents/container in accordance of all hazardous waste laws.

HMIS Classification

Health hazard: 3
Flammability: 0
Physical hazards: 0
Personal protection F

NFPA Rating

Health hazard: 3
Fire: 0
Reactivity hazard: 0

Potential Health Effects

Inhalation May cause irritation of the nose, throat, and respiratory tract.
Skin May produce pain, redness, severe irritation or full thickness burns. May be absorbed through the skin with possible systemic effects.
Eyes Corrosive! Causes irritation and burns. Can cause burns that may lead to permanent impairment of vision,

Ingestion

including blindness.

Corrosive. Causes immediate pain and burn of the mouth, throat, esophagus and gastrointestinal tract.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS#	ACGIH TWA	OSHA PEL	%	HAZARD
Water	7732-18-5	NE	NE	65-75	
Hydrogen Chloride	7647-01-0	+5 ppm	-7.5 mg/m3	25-35	Poison, corrosive
Ferric Chloride	7705-08-0	1 mg/m3	1 mg/m3	9-11	Corrosive

* - > These items are listed on the SARA title 3 section 313 Inventory
+ - > Denotes Ceiling Limit

The exact composition of this formula is considered to be proprietary information; however this product contains no other hazardous components at a level of 1% or greater and no known or suspected carcinogen at a level of 0.1% or greater.

4. FIRST AID MEASURES

General advice

Threshold Limit Value: Contains more than 25% hydrogen chloride – TLV – 5 ppm-Ceiling and (% Ferric Chloride, TLV 1 mg/m3. The TLV for the combined product has not been determined. This product contains no known carcinogen or potential carcinogen as defined by OSHA, The NTP, or the IARC Monographs. Effects of Overexposure: Eye irritant – Skin irritant – may cause severe burns – may be fatal if ingested. Emergency first aid procedures: inhalation; wear self contained breathing apparatus. Move to fresh air at the first sign of respiratory distress. If cough or difficulty in breathing develops, evaluate for respiratory tract irritation, bronchitis, or pneumonitis. If trained to do so, administer supplemental oxygen with assisted ventilation as required. Administer artificial respiration if patient is not breathing.

If inhaled

IMMEDIATELY flush exposed are with copious amounts of tepid water for at least 15 minutes followed by washing are thoroughly with soap and water. The patient should be seen in a health care facility if irritation or pain persists. Treat dermal irritation or burns with standard topical therapy. Patients developing dermal hypersensitivity reactions may require treatment with systemic or topic corticosteroids or antihistamines.

In case of skin contact

IMMEDIATELY shower with large quantities of water, within seconds after contact or suspected contact, and completely remove all clothing while in shower (remove goggles last). FLUSH SKIN THOROUGHLY WITH WATER FOR 5 MINUTES. Flushing with water thoroughly for 5 minutes is sufficient to effectively remove HF from skin. Additional flushing time is unnecessary and will delay further treatment. Apply calcium gluconate (2.5%) gel at burn site or area of contamination by rubbing in continuously. Wear impervious gloves. Examination and treatment by a physician is recommended as quickly as feasible. It may be necessary to transport patient to nearest hospital emergency room. Remember that concentrated HF causes immediate pain, BUT DILUTE HF SOLUTIONS MAY NOT CAUSE REDNESS, BURNING OR PAIN UNTIL SEVERAL MINUTES OR EVEN HOURS HAVE ELAPSED.

In case of eye contact

IMMEDIATELY flush eyes with large quantities of water for 15 MINUTES while holding the eyelids apart. If irritation, pain, swelling, excessive tearing, or light sensitivity persist, the patient should be seen in a health care facility and referred to an ophthalmologist.

If swallowed

Call a physician. If conscious, give the patient 4 to 8 ounces of milk or water to drink immediately. **Do not induce** vomiting. Observe patient for possible development of esophageal or gastrointestinal tract damage.

5. FIRE-FIGHTING MEASURES

Conditions of flammability

Not flammable.

Suitable extinguishing media

All types as determined by primary cause of combustion.

Special protective equipment for firefighters

Wear self contained breathing apparatus for firefighting Use water spray to keep containers cool.

Hazardous combustion products

Reaction with certain metals generates flammable and potentially explosive hydrogen gas. Considerable heat is evolved when contacted with many substances. Heat increases pressure and may explode container.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin, eyes, or clothing. Do not breathe vapor or mist.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Adequate ventilation to keep vapor and fume concentrations below applicable standards.

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Personal protective equipment

Respirators:

Positive pressure self contained breathing apparatus should be worn whenever material is transferred from one container to another or when being used.

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Prevent eye contact! Use chemical (indirectly vented) goggles when there is a potential for contact with liquid or mist. A full face shield may be worn over goggles for additional protection, but not as a substitute for goggles.

Skin and body protection

Prevent skin contact! Skin protection is required for exposure to liquid and or mist. Neoprene or viton gauntlet-type gloves, rain suits, aprons, boots, etc.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	clear brown

Safety data

pH	1 for a 2% solution
Melting point/ Freezing point	no data available
Boiling point	no data available
Flash point	Not flammable
Ignition temperature	no data available
Autoignition Temp	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	soluble
Partition coefficient: n-octanol/ Relative vapour density	no data available
Odour	strong acid odor
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Arsenic trioxide, phosphorous Pentoxide, ammonia, calcium oxide, sodium hydroxide, vinyl acetate, ethylenediamine, acetic anhydride.

Hazardous decomposition products

Reaction with metals will product hydrogen gas which highly flammable. Heat may product toxic oxides of chlorine and nitrogen. Contact with some organic materials may cause spontaneous combustion.

Hazardous Polymerization: will not occur

Incompatibilities: Metallic Powers, Carbides, Hydrogen Sulfide, Temperature and Alcohol.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Inhalation LC50

3124 ppm in rates

Dermal LD50

900 mg/kg (Hydrochloric acid concentrated); investigated as a tumorigen, mutagen, reproductive effector.

-----\Cancer Lists\-----

Ingredient	---NTP Carcinogen-----		IARC Category
	Known	Anticipated	
Hydrogen Chloride (7647-01-0)	No	No	3
Water (7732-18-5)	No	No	None

12. ECOLOGICAL INFORMATION

This product is harmful to aquatic life in very low concentrations. It may be dangerous if it enters water intake. Notify operators of nearby water intakes. Notify local health and wildlife officials.

13. DISPOSAL CONSIDERATIONS

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. TRANSPORT INFORMATION

DOT (US)

UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (hydrochloric acid.), 8, PGII

IMDG

UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (hydrochloric acid), 8, PGII

IATA

UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (hydrochloric acid), 8, PGII

15. REGULATORY INFORMATION

This product is considered a hazardous material under criteria of the federal OSHA hazard communication standard 29 CFR 1910.1200

Controlled product classification: C: Oxidizer: D-1B: Toxic (Acute Lethality); E: Corrosive

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sentury Reagents, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product.