

# SAFETY DATA SHEET

## Section 1. Identification

**Product Identifier:** RENEW  
**Other Means of Identification:** Cleaner / Descaler  
**Product Type:** Liquid  
**Recommended Uses and:** Acid replacement  
**Restrictions on use:** Do not use with chlorates, nitrates, hypochlorites or alkaline materials. Do not mix directly with dehydrating agents such as acetic anhydride or concentrated sulfuric acid.

**Supplier's Details:** Anderson Chemical Company  
325 South Davis Avenues  
Litchfield, MN 55355

Tel: 320-693-2347

Fax: 320-693-8238

www.accomn.com

**Emergency Telephone:** CHEMTREC, U.S.: 1-800-424-9300  
**Number**

## Section 2. Hazards Identification

**OSHA/HCS Status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the Substance or mixture**  
CORROSIVE TO METALS – Category 1  
ACUTE TOXICITY – Category 4  
SKIN CORROSION/IRRITATION – Category 1C  
SERIOUS EYE DAMAGE/EYE IRRITATION – Category 1  
REPRODUCTIVE TOXICITY – Category 1B

### GHS Label Elements

**Hazard pictograms:**



**Signal Word:** Danger

**Hazard Statements:** May be corrosive to metals.  
Harmful if swallowed  
Causes severe skin burns and serious eye damage  
May damage fertility or the unborn child (route of exposure: oral)

**Precautionary Statements****Prevention:**

Keep only in original container. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dusts or mists. Wear protective gloves, clothing and eye or face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

**Response:**

Absorb spillage to prevent material damage. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse Mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF exposed or concerned: Get medical advice/attention.

**Storage:**

Store in corrosive resistant containers such as fiberglass, polyethylene, polypropylene or containers with a resistant inner liner. Store locked up.

**Disposal:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazards Not Otherwise Classified**

None Known

**Section 3. Composition/Information on Ingredients**

**Substance/mixture:** Mixture

<b>Chemical Name</b>	<b>%</b>	<b>CAS Number</b>
Organic acid salt	Proprietary	-
Proprietary ingredient 2	Proprietary	-
Proprietary ingredient 3	Proprietary	-

The chemical identity and exact percentage of the composition has been withheld as it is a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

**Section 4. First Aid Measures****Description of Necessary First Aid Measures****Eye Contact:**

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

**Inhalation:**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin Contact:** Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion:** Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most Important Symptoms/Effects, Acute and Delayed

#### Potential Acute Health Effects

**Eye Contact:** Causes serious eye damage.

**Inhalation:** Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin Contact:** Causes severe skin burns.

**Ingestion:** Harmful if swallowed. Irritating to mouth, throat and stomach. May damage fertility or the unborn child.

### Over Exposure Signs/Symptoms

**Eye Contact:** Adverse symptoms may include the following:  
Pain or irritation  
Watering  
Redness

**Inhalation:** No known significant effects or critical hazards.

**Skin Contact:** Adverse symptoms may include the following:  
Pain or irritation  
Redness

**Ingestion:** Harmful if swallowed. Irritating to mouth, throat and stomach  
May damage fertility or the unborn child

### Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary

**Notes to Physician:** In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific Treatments:** No specific treatment

**Protection of First Aiders:** No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

## **Section 5. Fire-Fighting Measures**

### Extinguishing Media

**Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing:** None known

media

**Specific Hazards Arising from the chemical:** Heating above 110°C results in an exothermic decomposition with release of CO<sub>2</sub> gas and potentially hydrofluoric acid.

**Hazardous thermal decomposition products:** Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 nitrogen oxides  
 hydrofluoric acid  
 metalloid fluorides  
 hydrogen cyanide  
 hydrogen gas

**Special protective actions for fire-fighters:** No special measures are required.

**Special protective equipment for fire-fighters:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental Release Measures

### Personal Precautions, Protective Equipment and Emergency Procedures

**For non-emergency Personnel:** No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders:** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental Precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and Materials for Containment and Cleaning Up

**Spill:** Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and Storage

### Precautions for Safe Handling

**Protective Measures:** Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly

closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on General:  
occupational hygiene**

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

**Conditions for Safe:  
Storage, including any  
Incompatibilities**

Store below 35°C (95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure Controls/ Personal Protection

**Control Parameters**

**Occupational Exposure:  
Limits**

None

**Appropriate Engineering:  
Controls**

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental Exposure:  
Controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

**Individual Protection Measures**

**Hygiene Measures:**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/Face Protection:**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin Protection**

**Hand Protection:**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body Protection:**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

- Other Skin Protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory Protection:** Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and Chemical Properties

### Appearance

<b>Physical State:</b>	Liquid. [Clear with some sediment]
<b>Color:</b>	Colorless to Amber
<b>Odor:</b>	Mild acrid odor
<b>Odor Threshold:</b>	Not available
<b>pH:</b>	<1 typical [25g APW in 30g DI Water]
<b>Melting/Freezing Point:</b>	<-30°C
<b>Boiling Point/Range:</b>	100°C (212°F)
<b>Flash Point:</b>	>93.3°C (>200°F)
<b>Evaporation Rate:</b>	>1 (Butyl acetate = 1)
<b>Flammability (solid, gas):</b>	Not available
<b>Lower and Upper Explosive: (flammable) Limits</b>	Not available
<b>Vapor Pressure:</b>	<0.013kPa (<0.1mmHg) [room temperature]
<b>Vapor Density:</b>	>1 [Air = 1]
<b>Relative Density:</b>	1.301-1.381
<b>Solubility:</b>	Easily soluble in the following materials: water
<b>Partition Coefficient: n-octanol/water</b>	Not available
<b>Auto-Ignition Temperature:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Viscosity:</b>	Not available

## Section 10. Stability and Reactivity

- Reactivity:** No specific test data related to reactivity available for this product or its ingredients
- Chemical Stability:** This product is stable up to 95°C (203°F)
- Possibility of Hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to Avoid:** Do not heat above 110°C as this will result in an exothermic decomposition with rapid release of CO<sub>2</sub> gas and potentially hydrofluoric acid.
- Incompatible Materials:** Reactive or incompatible with the following materials: oxidizing materials, aluminum and zinc. This material may be extremely hazardous in contact with chlorates and nitrates. Contact with hypochlorites (eg. Chlorine bleach, sulfides or cyanides) will liberate toxic gases. Contact with alkaline materials (eg. Aqua ammonia) will generate heat and may product noxious gas. Do not mix directly with dehydrating agents such as acetic

anhydride or concentrated sulfuric acid. High concentrations of APW will react vigorously with carbonate scales which may carry vapor and so care must be taken to avoid inhalation.

**Hazardous Decomposition: products** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

Product/Ingredient Name	Result	Species	Dose	Exposure
MP-125	LD50 Oral	Rat	798.1 mg/kg	-

#### Irritation/Corrosion

Corrosive to the skin (OECD 404)

#### Sensitization

There is no data available

#### Carcinogenicity

No components are listed as carcinogens by IARC, ACGIH, OSHA or NTP above the threshold of 0.1%

#### Specific Target Organ Toxicity (single exposure)

There is no data available

#### Specific Target Organ Toxicity (repeated exposure)

There is no data available

#### Aspiration Hazard

There is no data available

**Information on the likely routes of exposure:** Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential Acute Health Effects

##### **Eye contact:**

Causes serious eye damage

##### **Inhalation:**

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

##### **Skin Contact:**

Causes severe skin burns.

##### **Ingestion:**

Harmful if swallowed. Irritating to mouth, throat and stomach.  
May damage fertility or the unborn child.

#### Symptoms related to the physical, chemical and toxicological characteristics

##### **Eye Contact:**

Adverse symptoms may include the following:  
Pain or irritation  
Watering  
Redness

##### **Inhalation:**

No known significant effects or critical hazards.

##### **Skin Contact:**

Adverse symptoms may include the following:  
Pain or irritation  
redness

##### **Ingestion:**

Harmful if swallowed. Irritating to mouth, throat and stomach  
May damage fertility or the unborn child.

#### Delayed and immediate effects and also chronic effects from short and long term exposure

##### Short term exposure

**Potential immediate effects:** No known significant effects or critical hazards.

**Potential delayed effects:** No known significant effects or critical hazards.

**Long term exposure**

**Potential immediate effects:** No known significant effects or critical hazards.

**Potential delayed effects:** No known significant effects or critical hazards.

**Potential chronic health effects**

**General:** No known significant effects or critical hazards.

**Carcinogenicity:** No known significant effects or critical hazards.

**Mutagenicity:** No known significant effects or critical hazards.

**Teratogenicity:** No known significant effects or critical hazards.

**Developmental effects:** No known significant effects or critical hazards.

**Fertility effects:** No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates** There is no data available.

## Section 12. Ecological Information

**Toxicity** There is no data available

**Persistence and Degradability:** There is no data available

**Bioaccumulative Potential:** There is no data available

**Mobility in Soil**

**Soil/water partition coefficient:  
(K<sub>oc</sub>)** Not available

**Other adverse effects:** No known significant effects or critical hazards.

## Section 13. Disposal Considerations

**Disposal Methods:** The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport Information

	<b>DOT / TDG</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN Number</b>	1760	1760	1760
<b>UN Proper Shipping Name</b>	Corrosive liquid N.O.S. (acid salts)	Corrosive liquid N.O.S. (acid salts)	Corrosive liquid N.O.S. (acid salts)
<b>Transport Hazard Class(es)</b>	8	8	8



<b>Packing Group</b>	III	III	III
<b>Environmental Hazards</b>	No	No	No
<b>Additional Information</b>			

**Transport in bulk according:** Not available

**To Annex II of MARPOL  
73/78 and the IBC Code**

**Special precautions for user:** Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory Information

United States – Patent No. 8,389,453

**U.S. Federal Regulations:** **United States Inventory (TSCA):** All components are listed or exempted

**Clean Air Act Section 112:** Not listed

**(b) Hazardous Air  
Pollutants (HAPS)**

**Clean Air Act Section 602:** Not listed

**Class I Substances**

**Clean Air Act Section 602:** Not listed

**Class II Substances**

**DEA List I Chemicals:** Not listed

**(Precursor Chemicals)**

**DEA List II Chemicals:** Not listed

**(Essential Chemicals)**

### SARA 302/304

#### Composition/Information on Ingredients

Not listed

### SARA 311/312

**Classification:** Immediate (acute) health hazard

#### Composition/Information on Ingredients

Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Immediate (acute) Health Hazard	Delayed (chronic) Health Hazard
Organic Acid Salt	proprietary	No	No	No	Yes	No
Proprietary ingredient 2	proprietary	No	No	No	Yes	No
Proprietary ingredient 3	proprietary	No	No	No	Yes	No

### International Lists

#### National Inventory

**Australia (AICS):**

At least one component is not listed.

**Canada (DSL):**

All components are listed or exempted.

**China (IECSC):**

At least one component is not listed.

**Europe (EINECS):**

At least one component is not listed.

<b>Japan (ENCS):</b>	At least one component is not listed.
<b>New Zealand (NZIoC):</b>	At least one component is not listed.
<b>Philippines (PICCS):</b>	At least one component is not listed.
<b>Republic of Korea (KECL):</b>	At least one component is not listed.
<b>Taiwan (NECI):</b>	At least one component is not listed.

## Section 16. Other Information

### History

<b>Date of issue mm/dd/yyyy:</b>	12/03/2014
<b>Date of previous issue:</b>	None
<b>Version:</b>	1
<b>Revised Section(s):</b>	Not applicable
<b>Prepared by:</b>	lmt

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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