

Revision Date 10-Dec-2019

Version 3

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier**

**Product Name** KC-435

**Other means of identification**

**Product Code** 20618

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Descaler

**Uses advised against** Follow the directions for use on the label when applying this product

**Details of the supplier of the safety data sheet**

**Manufacturer Address**

PSSI Chemical Innovations  
3729 Peddle Hollow Road  
Kieler, WI 53812

**Emergency telephone number**

**Company Phone Number** 888-671-5366

**Emergency Telephone** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                                   |             |
|-----------------------------------|-------------|
| Skin corrosion/irritation         | Category 1  |
| Serious eye damage/eye irritation | Category 1  |
| Reproductive toxicity             | Category 1B |

**Label elements**

**Emergency Overview**

**Danger**

**Hazard statements**

Causes severe skin burns and eye damage  
May damage fertility or the unborn child



**Appearance** Aqueous solution

**Physical state** Liquid

**Odor** Sour

**Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dusts or mists  
Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

Immediately call a poison center or doctor  
Specific treatment (see Section 4 on SDS)  
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  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor  
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other Information**

- May be harmful if swallowed

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Chemical Name     | CAS No.     | weight-% |
|-------------------|-------------|----------|
| Water             | 7732-18-5   | 70-80    |
| Organic acid salt | Proprietary | 19-23    |
| Trade Secret      | Proprietary | 2-4      |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES**

**First aid measures**

**Eye contact** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Seek immediate medical attention/advice.

**Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing and shoes before reuse. For severe burns, immediate medical attention is required.

**Inhalation** Remove to fresh air. Administer oxygen if breathing is difficult. Call a physician immediately.

**Ingestion** Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** See Section 11 for symptom information.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Dry chemical. Water spray (fog). Carbon dioxide (CO2). Foam.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

This product reacts with metals, and may liberate hazardous quantities of hydrogen gas.

**Hazardous combustion products** Carbon oxides. Nitrogen oxides (NOx). Chlorine gas. Hydrogen gas.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers with flooding quantities of water until well after fire is out. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas.

**For emergency responders** Isolate area. Keep unnecessary personnel away.

**Environmental precautions**

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so. Neutralize with sodium bicarbonate, soda ash, or lime.

**Methods for cleaning up** Pick up neutralized solution with a plastic pump or vacuum truck and store the neutralized solution in a leak-proof polyethylene container until product can be disposed of in a hazardous waste facility. Flush area twice with water to remove any remaining residues. Store wash solution in polyethylene containers for disposal.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Use only in well-ventilated areas. Avoid breathing vapors or mists. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Do not allow water to get into container.

**Incompatible materials** Chlorinated compounds. Alkali. Metals.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering Controls** Showers, eyewash stations, ventilation system.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Splash proof chemical goggles and face shield.

**Skin and body protection** Wear protective Neoprene™ gloves or rubber gloves. Wear suitable protective clothing. Rubber boots recommended.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing and shoes before reuse. Do not eat, drink or smoke when using this product.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

|                                      |                          |                         |                          |
|--------------------------------------|--------------------------|-------------------------|--------------------------|
| <b>Physical state</b>                | Liquid                   | <b>Odor</b>             | Sour                     |
| <b>Appearance</b>                    | Aqueous solution         | <b>Odor threshold</b>   | No information available |
| <b>Color</b>                         | Clear light yellow       | <b>Remarks • Method</b> |                          |
| <b>Property</b>                      | <b>Values</b>            |                         |                          |
| <b>pH</b>                            | 1                        | ±1 @ 21°C               |                          |
| <b>Melting point/freezing point</b>  | < -13.3 °C / < 8 °F      |                         |                          |
| <b>Boiling point / boiling range</b> | No information available |                         |                          |
| <b>Flash point</b>                   | Not flammable            |                         |                          |
| <b>Evaporation rate</b>              | No information available |                         |                          |
| <b>Flammability (solid, gas)</b>     | No information available |                         |                          |
| <b>Flammability Limit in Air</b>     |                          |                         |                          |
| <b>Upper flammability limit:</b>     | No information available |                         |                          |
| <b>Lower flammability limit:</b>     | No information available |                         |                          |
| <b>Vapor pressure</b>                | No information available |                         |                          |
| <b>Vapor density</b>                 | No information available |                         |                          |
| <b>Specific Gravity</b>              | 1.06 g/cc                |                         |                          |
| <b>Water solubility</b>              | Completely soluble       |                         |                          |
| <b>Solubility in other solvents</b>  | No information available |                         |                          |
| <b>Partition coefficient</b>         | No information available |                         |                          |
| <b>Autoignition temperature</b>      | No information available |                         |                          |
| <b>Decomposition temperature</b>     | No information available |                         |                          |
| <b>Kinematic viscosity</b>           | No information available |                         |                          |
| <b>Dynamic viscosity</b>             | No information available |                         |                          |
| <b>Explosive properties</b>          | No information available |                         |                          |
| <b>Oxidizing properties</b>          | No information available |                         |                          |
| <b>VOC Content (%)</b>               | No data available        |                         |                          |

**10. STABILITY AND REACTIVITY**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

None known.

**Incompatible materials**

Chlorinated compounds. Alkali. Metals.

**Hazardous Decomposition Products**

Hydrofluoric acid. Carbon oxides. Nitrogen oxides (NOx). Chlorine gas. Hydrogen gas.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

**Inhalation** Inhalation of vapors in high concentration may cause irritation of respiratory system. Vapors may be irritating to eyes, nose, throat, and lungs.

|                     |  |
|---------------------|--|
| <b>Eye contact</b>  | Risk of serious damage to eyes. Corrosive to the eyes and may cause severe damage including blindness.                           |
| <b>Skin Contact</b> | Corrosive. Contact causes severe skin irritation and possible burns.   |
| <b>Ingestion</b>    | Harmful if swallowed. Can burn mouth, throat, and stomach. Ingestion causes burns of the upper digestive and respiratory tracts. |

| Chemical Name                    | Oral LD50           | Dermal LD50          | Inhalation LC50 |
|----------------------------------|---------------------|----------------------|-----------------|
| Organic acid salt<br>Proprietary | = 678.3 mg/kg (Rat) | = 2109.4 mg/kg (Rat) | -               |

**Information on toxicological effects**

|   |  |
|---|--|
| <b>Symptoms</b>   | No information available.  |
| <b>Delayed and immediate effects as well as chronic effects from short and long-term exposure</b> |  |
| <b>Sensitization</b>  | No information available.  |
| <b>Germ cell mutagenicity</b>   | No information available.  |
| <b>Carcinogenicity</b>  | This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. |
| <b>Reproductive toxicity</b>  | No information available.  |
| <b>STOT - single exposure</b>   | No information available.  |
| <b>STOT - repeated exposure</b>   | No information available.  |
| <b>Aspiration hazard</b>  | No information available.  |
| <b>Numerical measures of toxicity - Product Information</b>                                       |  |
| <b>Unknown Acute Toxicity</b>   | 3% of the mixture consists of ingredient(s) of unknown toxicity  |
| <b>The following values are calculated based on chapter 3.1 of the GHS document</b>               |  |
| Oral LD50   | 3,230.00 mg/kg   |
| Dermal LD50   | 10,044.80 mg/kg  |

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

24.07% of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

Soluble in water.

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

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

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

**TSCA** No information available

**DSL/NDSL** No information available

**EINECS/ELINCS** No information available

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

|  |     |
|--|-----|
| <b>Acute health hazard</b>               | Yes |
| <b>Chronic Health Hazard</b>             | No  |
| <b>Fire hazard</b>                       | No  |
| <b>Sudden release of pressure hazard</b> | No  |
| <b>Reactive Hazard</b>                   | No  |

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations**

**California Proposition 65**

WARNING! This product contains a chemical known to the state of California to cause cancer: Ethylene oxide 75-21-8.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated by state right-to-know regulations

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not Applicable

**16. OTHER INFORMATION**

|                    |                  |                |                    |  |
|--------------------|------------------|----------------|--------------------|--|
| <b><u>NFPA</u></b> | Health hazards 2 | Flammability 0 | Instability 0      | <b>Physical and Chemical Properties</b><br>None          |
| <b><u>HMIS</u></b> | Health hazards 2 | Flammability 0 | Physical hazards 0 | <b>Personal protection</b><br>B (safety glasses, gloves) |

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 Revision Note

New information on raw ingredient has become available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The health hazards given on this SDS apply to this product in its concentrated form (as supplied) and may differ significantly at use dilution. The signs and symptoms of exposure apply only to negligence in handling or misuse of the concentrated product and not to the routine exposure of the diluted product under conditions of ordinary use.

**End of Safety Data Sheet**