

SAFETY DATA SHEET

Section 1, Identification

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| <i>Product:</i> | Karlin Foods Baking Soda, KF ID# S24BS |
| <i>Manufacturer:</i> | Karlin Foods Corp 1845 Oak St. Suite 19 Northfield, IL 60093 |
| <i>Emergency Phone Number:</i> | Karlin Foods: 847-441-8330 Chemtrec: 800-424-9300 |
| <i>Recommended Use:</i> | Leavening agent, cleaner ingredient, bath salt ingredient, water softener, diaper rinse ingredient, direct food additive |
| <i>Restrictions on Use:</i> | None |

Section 2, Hazard(s) Identification

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| <i>Classification:</i> | OSHA Regulatory Status. This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) |
| <i>Required Label:</i> | The product contains no substances which at their given concentration, are considered to be hazardous to health |
| <i>Other Information:</i> | Product dust may cause mechanical eye irritation. |

Section 3, Composition/Information on Ingredients

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| <i>Formula:</i> | NaHCO ₃ |
| <i>Chemical Name:</i> | Sodium Bicarbonate |

Section 4, First Aid Measures

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| <i>Eye Contact:</i> | Flush eyes with water as a precaution. Get Medical attention if irritation develops and persists. |
| <i>Skin Contact:</i> | Wash skin with soap and water. Get medical attention if irritation develops and persists. |
| <i>Inhalation:</i> | Remove person to fresh air. If signs/symptoms continue, get medical attention. |
| <i>Ingestions:</i> | Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur |
| <i>Most important symptoms and effects, both acute and delayed:</i> | None known. |
| <i>Indication of immediate medical attention and special treatment needed, if necessary</i> | Treat symptomatically. |

Section 5, Fire-Fighting Measures

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| <i>Suitable Extinguishing Media:</i> | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment |
| <i>Specific Hazards Arising from the Chemical:</i> | None in particular. Not flammable |
| <i>Hazardous Combustion Products:</i> | None |
| <i>Explosion data</i> | |

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| <i>Sensitivity to Mechanical Impact:</i> | Not sensitive |
| <i>Sensitivity to Static Discharge:</i> | Not sensitive |
| <i>Protective equipment and precautions for firefighters</i> | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear |
| Section 6, Accidental Release Measures | |
| <i>Personal Precautions:</i> | Avoid dust formation. |
| <i>Other:</i> | For further clean-up instructions, call Emergency Hotline number listed in Section 1 “Product and Company Identification” above. |
| <i>Environmental Precautions:</i> | Prevent material from entering into soil, ditches, sewers, waterways, and/or groundwater. See Section 12, Ecological Information for more detailed information. |
| <i>Methods for Containment:</i> | Vacuum or shovel waste into a drum and label contents for disposal. |
| <i>Methods for cleaning up:</i> | Pick up and transfer to properly labeled containers. Keep in suitable and closed containers for disposal. Dispose of waste as indications in Section 13. |
| Section 7, Handling and Storage | |
| <i>Handling:</i> | Use air conveying/mechanical systems for bulk transfer to storage. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment if release of airborne dust is expected. |
| <i>Storage:</i> | Keep in a dry place. Keep away from incompatible products (acids). Do not store with strong smelling materials. |
| <i>Incompatible Products:</i> | Except under controlled conditions: Acids |
| Sections 8, Exposure Controls/Personal Protection | |
| <i>Control Parameters:</i> | This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. Local nuisance dust standards apply. |
| <i>Appropriate Engineering Controls:</i> | Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. |
| <i>Individual protection measures, such as personal protective equipment.</i> | |
| <i>Eye/Face Protection:</i> | Safety glasses with side shields |
| <i>Skin and Body Protection:</i> | Wear suitable protective clothing. Protective shoes or boots. |
| <i>Hand Protection:</i> | Protective gloves. |
| <i>Respiratory Protection:</i> | In case of inadequate ventilation, wear respiratory protection. |
| <i>Hygiene Measures:</i> | Handle in accordance with good industrial hygiene and safety practice. |

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| <i>General Information:</i> | If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. |
| Section 9, Physical and Chemical Properties | |
| <i>Appearance:</i> | Crystalline, Powder |
| <i>Physical State:</i> | Solid |
| <i>Color:</i> | White |
| <i>Odor:</i> | Odorless |
| <i>Odor Threshold:</i> | Not applicable |
| <i>pH:</i> | 8.3 (1% solution) @ 25 degrees Celsius |
| <i>Melting Point/freezing point:</i> | Not applicable |
| <i>Boiling Point/Range:</i> | No information available |
| <i>Flash point:</i> | Not applicable |
| <i>Evaporation Rate:</i> | No information available |
| <i>Flammability (solid, gas):</i> | No information available |
| <i>Flammability Limit in Air:</i> | No information available |
| <i>Vapor pressure:</i> | Negligible |
| <i>Vapor density:</i> | No information available |
| <i>Density:</i> | No information available |
| <i>Specific gravity:</i> | 2.22 |
| <i>Water solubility:</i> | 96g/L @ 20 degrees Celsius |
| <i>Solubility in other solvents:</i> | No information available |
| <i>Partition coefficient:</i> | Not applicable |
| <i>Autoignition temperature:</i> | No information available |
| <i>Decomposition temperature:</i> | No information available |
| <i>Viscosity, kinematic:</i> | No information available |
| <i>Viscosity, dynamic:</i> | No information available |
| <i>Explosive properties:</i> | No information available |
| <i>Oxidizing properties:</i> | Non-oxidizing |
| <i>Molecular weight:</i> | 84.01 |
| <i>Bulk Density:</i> | 66 lb/cu ft |
| Section 10, Stability and Reactivity | |
| <i>Reactivity:</i> | None under normal use conditions |
| <i>Chemical Stability:</i> | Stable |
| <i>Possibility of Hazardous Reactions:</i> | None under normal processing/ |
| <i>Hazardous polymerization:</i> | Hazardous polymerization does not occur |
| <i>Conditions to avoid:</i> | Heat. Humid air. Avoid contact with acids except under controlled conditions. Keep away from strong odor. |
| <i>Incompatible materials:</i> | Except under controlled conditions: Acids. |
| <i>Hazardous Decomposition Products:</i> | Reacts with acids to release carbon dioxide gas and heat. |
| Section 11, Toxicological Information | |
| <i>LD50 Oral:</i> | >5,000 mg/kg (rat) |
| <i>LD50 Dermal:</i> | No information available |
| <i>LC50 Inhalation:</i> | >4.74 mg/L (rat) 4.5 hr |
| <i>Eye Contact:</i> | Non-irritating |

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|--|---|---|----------------------------|-------|
| <i>Skin Contact:</i> | Non-irritating | | | |
| <i>Sensitization:</i> | Non-sensitizing | | | |
| <i>Info on toxicological effects: Symptoms</i> | No information available. | | | |
| <i>Chronic Toxicity:</i> | No known effect | | | |
| <i>Mutagenicity:</i> | Not mutagenic | | | |
| <i>Carcinogenicity:</i> | Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH) | | | |
| <i>Reproductive toxicity:</i> | No information available | | | |
| <i>STOT – single exposure:</i> | No information available | | | |
| <i>STOT – repeated exposure:</i> | No information available | | | |
| <i>Aspiration hazard:</i> | No information available | | | |
| Section 12, Ecological Information | | | | |
| <u>Ecotoxicity</u> | | | | |
| Sodium Bicarbonate (144-55-8) | | | | |
| Active Ingredient(s) | Duration | Species | Value | Units |
| Sodium bicarbonate | 96 hr. | <i>Lepomis macrochirus</i> (Bluefill sunfish) | NOEC: 5,200 LC50: 7,100 | mg/L |
| Sodium bicarbonate | 48 hr. immobilization test | <i>Daphnia magna</i> | NOEC: 3,100 EC50: 4,100 | mg/L |
| Sodium bicarbonate | 96 hr. | <i>Oncorhynchus mykiss</i> (rainbow trout) | NOEC: 2,300 LC50: 7,700 | mg/L |
| <i>Persistence and degradability:</i> | Biodegradability does not pertain to inorganic substances. | | | |
| <i>Bioaccumulation:</i> | Does not bio-accumulate | | | |
| <i>Mobility:</i> | Dissociates into ions. | | | |
| <i>Other Adverse Effects:</i> | None known. | | | |
| Section 13, Disposal Considerations | | | | |
| <i>Waste disposal methods:</i> | This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Dispose of in accordance with local regulations. | | | |
| <i>Contaminated Packaging:</i> | Dispose of in accordance with local regulations | | | |
| Section 14, Transport Information | | | | |
| <i>DOT</i> | Not Regulated | | | |
| Section 15, Regulatory Information | | | | |
| <i>U.S. Federal Regulations</i> | | | | |
| <i>SARA313</i> | 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 | | | |
| <i>SARA 311/312 Hazard Categories</i> | | | | |
| <i>Acute health hazard</i> | No | | | |
| <i>Chronic health hazard</i> | No | | | |
| <i>Fire hazard</i> | No | | | |
| <i>Sudden release of pressure hazard</i> | No | | | |
| <i>Reactive Hazard</i> | No | | | |

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|--|---|-------------------------|--|------------------------------|--------------------------|-------------------------|--------------------------------|-----------------------------|
| <i>Clean Water Act</i> | 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) | | | | | | | |
| <i>CERCLA</i> | 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. | | | | | | | |
| <i>California Proposition 65</i> | This product does not contain any Proposition 65 Chemicals | | | | | | | |
| <i>U.S. State Right-to-Know Regulations</i> | This product does not contain any substances regulated by state right-to-know regulations. | | | | | | | |
| <i>International Inventories</i> | | | | | | | | |
| Component | TSCA (United States) | DSL (Canada) | EINECS/ELI NCS (Europe) | ENCS (Japan) | China (IECSC) | KECL (Korea) | PICCS (Philippines) | AICS (Australia) |
| Sodium Bicarbonate 144-55-8 (100) | X | X | X | X | X | X | X | X |
| Section 16, Other Information | | | | | | | | |
| NFPA | Health Hazards 0 | Flammability 0 | Instability 0 | Special Hazards - | | | | |
| HMIS | Health Hazards 0 | Flammability 0 | Physical hazard 0 | Personal Protection X | | | | |
| NFPA/HMIS Ratings Legend Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0 | | | | | | | | |
| Product Certifications This product meets the chemical testing specifications defined in the USP and Food Chemicals Codex (FCC), 9th Edition and is manufactured under GMP and in compliance with FSMA. The MUL (maximum use level) for sodium bicarbonate is 100 mg/L under NSF/ANSI Standard 60. | | | | | | | | |

Section 1 Chemical Product and Company Identification

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HOME SCIENCE TOOLS

665 Carbon Street
Billings, MT 59102
800-860-6272
www.homesciencetools.com

CHEMTREC 24 Hour Emergency USA
Phone Number (800) 424-9300
1 703-741-5500 (from anywhere in the world).
For laboratory and industrial use only.
Not for drug, food or household use.

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|-----------------|---------------------------------|
| Product | AMMONIUM CHLORIDE |
| Synonyms | Ammonium Muriate ; Sal Ammoniac |

Section 2 Hazards Identification

Signal word: WARNING
Pictograms: GHS07
Target organs: None known



GHS Classification:
Acute toxicity, oral (Category 4)
Eye irritation (Category 2A)

GHS Label information: Hazard statement:
H302: Harmful if swallowed.
H319: Causes serious eye irritation.

Precautionary statement:

P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical attention.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known
Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / Information on Ingredients

| Chemical Name | CAS # | % | EINECS |
|-------------------|------------|------|-----------|
| Ammonium chloride | 12125-02-9 | 100% | 235-186-4 |

Section 4 First Aid Measures

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Carbon dioxide, dry chemical, dry sand, alcohol foam.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Reacts violently with ammonium nitrate and potassium chlorate. This generates fire and explosion hazard. Vaporizes at temperatures of about 335°C (653°F) evolving fumes of nitrogen oxides, chloride ions and ammonia gas.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8 Exposure Controls / Personal Protection

| Exposure Limits: | Chemical Name | ACGIH (TLV) | OSHA (PEL) | NIOSH (REL) |
|------------------|------------------------|--|------------------|--|
| | Ammonium chloride fume | TWA: 10 mg/m ³ STEL: 20 mg/m ³ | None established | TWA: 10 mg/m ³ STEL: 20 mg/m ³ |

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

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| Appearance: Solid, white, crystalline powder Odor: No odor. Odor threshold: Data not available. pH: Data not available. Melting / Freezing point: 520°C (968°F) Boiling point: Sublimes @ 340°C (644°F) Flash point: Data not available | Evaporation rate (= 1): Data not available Flammability (solid/gas): Data not available. Explosion limits: as NH ₃ Lower: 15% Upper: 28% Vapor pressure (mm Hg): Data not available Vapor density (Air = 1): Data not available Relative density (Specific gravity): 1.527 Solubility(ies): Soluble in water. | Partition coefficient: Data not available Auto-ignition temperature: Data not available Decomposition temperature: Data not available. Viscosity: Data not available. Molecular formula: NH ₄ Cl Molecular weight: 53.49 |
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Section 10 Stability & Reactivity

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: Somewhat hygroscopic. Has an acid reaction in aqueous solution, solid tends to lose ammonia and become more acid on exposure and in storage.

Incompatible materials: Oxidizing agents, acids, bases, lead and silver salts.

Hazardous decomposition products: Ammonia and hydrogen chloride.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 1,650 mg/kg

Skin corrosion/irritation: Skin-rabbit - Slight irritant.

Serious eye damage/irritation: Eyes-rabbit - irritant.

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenicity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Data not available

STOT-single exposure: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Inhalation of dust or fume from heating may cause upper respiratory tract irritation, coughing, and choking sensation.

Ingestion: Ingestion of large doses cause nausea, vomiting, acidosis, irritation of the mouth, esophagus and gastric system. Ingestion may result in low grade toxicity.

Skin: Contact with skin causes irritation and/or dermatitis.

Eyes: Contact with eyes causes irritation and/or visual impairment.

Signs and symptoms of exposure: See Potential health effects above. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: BP4550000

Section 12 Ecological Information

Toxicity to fish: Salmo clarki (fish, fresh water, marine), LC50 = 123.8 - 166.6 mg/L/96 hours

Toxicity to daphnia and other aquatic invertebrates: Artemia salina (Crustacea), EC50 = 28 mg/L/24 hours

Toxicity to algae: Dunaliella tertiolecta (Algae) EC40 = 21.3 mg/L/90 minutes

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: Not applicable

Shipping name: Not Regulated

Hazard class: Not applicable

Packing group: Not applicable

Reportable Quantity: No

Marine pollutant: No

Exceptions: Not applicable

2016 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

| Component | TSCA | CERCLA (RQ) | RCRA code | DSL | NDSL | CA Prop 65 |
|-------------------|--------|--------------------|------------|--------|------------|--|
| Ammonium chloride | Listed | 5000 lbs (2270 kg) | Not listed | Listed | Not listed | This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity. |

Section 16 Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.



Woeber **MUSTARD** Manufacturing Company

P.O. Box 388 • 1966 Commerce Circle • Springfield, Ohio 45501

Phone 937/323-6281 • 1-800/548-2929 • FAX 937/323-1679

Section 1: Identification

Product Identifier: Vinegar (5% acidity)
Chemical Name: Acetic Acid (CH₃COOH)
CAS #: 64-19-7
Recommended Use: Food
Manufacturer Name: Woeber Mustard Mfg. Company
Address: 1966 Commerce Circle
Springfield, OH 45501
Telephone: 1-800-548-2929
Emergency Number: CHEMTREC: 1-800-424-9300

Section 2: Hazard(s) Identification

GHS Classification: Skin Corrosive 2, Eye Irritant 2A, Hazardous to aquatic environment



Signal Word : WARNING

Hazard Statements
H320: Causes eye irritation
H315: Causes skin irritation
H332: Harmful if inhaled
H402: Harmful to aquatic life

Precautionary Statements
P261: Avoid breathing fumes/mist/vapors/spray
P264: Wash exposed skin thoroughly after handling.
P280: Wear protective gloves to avoid prolonged exposure.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P273: Avoid release into the environment

Concentrated vapors irritating to eyes and respiratory tract, avoid inhalation. May cause minor skin irritation.

NFPA Scale-



NFPA SCALE (0-4)

HMIS Rating-

| | |
|---------------------|---|
| Health | 2 |
| Flammability | 1 |
| Physical Hazard | 0 |
| Personal Protection | X |

HMIS RATINGS (0-4)

Section 3: Composition/Information on Ingredients

| <u>Chemical Name</u> | <u>Amount</u> | <u>CAS Number</u> |
|-----------------------------|----------------------|--------------------------|
| Acetic Acid | 5% | 64-19-7 |
| Water | 95% | 7732-18-5 |

Section 4: First Aid Measures

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|----------------------|---|
| Inhalation: | If exposed to excessive levels of fumes, remove to fresh air. |
| Eye Contact: | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER. |
| Skin Contact: | If on skin; wash with plenty of soap and water. If skin irritation occurs, seek medical advice/attention. If on clothes; remove/take off all contaminated clothing. Rinse skin with soap and water. |
| Ingestion: | Intended for ingestion, however if swallowed in large quantities, water may be consumed to dilute. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. |

Section 5: Fire Fighting Measures

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| Flash Point: | 40° C (104° F) closed cup (Acetic Acid) |
| Auto Ignition Temp.: | 427° C (800° F) (Acetic Acid) |
| Flammable Limits in Air: | 4.0% - 16% (Acetic Acid) |
| Extinguishing Media: | Water spray, foam CO2 or dry chemical. Water may be used to dilute spills and reduce flammability. |
| Hazards from Fire: | Toxic gasses and vapors may be released in a fire involving concentrated vinegars. |

Section 6: Accidental Release Measures

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|-----------------------------------|--|
| Small Spill Procedure: | Treat or dispose of waste material as a weak acid in accordance with all local, state/provincial, and national requirements. Water may be used to dilute. |
| Large Spill Procedure: | Contain spilled material. Large spills may be neutralized with dilute alkaline solutions of soda ash, or lime. Avoid runoff into storm sewers and ditches that lead to waterways. Treat or dispose of waste material as a weak acid in accordance with all local, state/provincial, and national requirements. |
| Personal Protection: | Protect skin and eyes from exposure. Avoid breathing vapor. |
| Environmental Precautions: | Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. |

Section 7: Handling and Storage

Precautions for Handling:

Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Wash contaminated clothing before reusing.

Conditions for safe Storage:

Store in a cool, well ventilated place.

Section 8: Exposure Controls/Personal Protection

Permissible Exposure Limit (PEL): 10 ppm acetic acid

Threshold Limit Value (TLV): 10 ppm acetic acid

Short Term Exposure Limit (STEL): 15 ppm acetic acid

Recommended Exposure Limit (REL): 10 ppm acetic acid

Engineering Controls:

Local exhaust ventilation may be necessary to control any air contaminants to within their TLV during the use of the product. Emergency shower and eye wash stations should be readily available.

Eye/Face Protection:

Wear safety glasses and/or face shield.

Skin Protection:

Rubber/neoprene gloves recommended. Rubber apron or other protective equipment as needed to reduce direct contact. (Concentrated vinegars only)

Respiratory Protection:

As required to prevent exposure to concentrations which exceed the PEL.

Thermal Hazards: None known

General Hygiene considerations:

Section 9: Physical and Chemical Properties

| | |
|--------------------------------|-----------------------|
| Physical State and Appearance: | Liquid |
| Odor: | Pungent, Vinegar-like |
| Color: | Colorless, Clear |
| Boiling Point: | 100°C (212°F) |
| Freezing Point: | -2.22°C (28 °F) |
| PH: | 2.6 |
| Specific Gravity: | 1.049 (Water = 1) |
| Vapor Pressure: | 1.5 kPa @ 20°C |
| Solubility in Water: | Complete |

Section 10: Stability and Reactivity

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|------------------------------|---|
| Reactivity/Stability: | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Incompatibilities: | Avoid strong oxidizing agents / bases |
| Polymerization: | Will not occur |

Section 11: Toxicological Information

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|-------------------------|--|
| Routes of entry | Inhalation, ingestion and skin contact |
| Symptoms (acute) | Respiratory irritation |
| Delayed effects | No data available |
| Carcinogenicity | No evidence of a carcinogenic effect |
| Mutagenicity | No evidence of a mutagenicity effect |
| Teratogenicity | No evidence of a teratogenicity effect |
| Sensitization | No evidence of a sensitization effect |
| Reproductive | No evidence of a Reproductive effect |

Section 12: Ecological Information

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|---------------------|---|
| Ecotoxicity: | Will biodegrade readily under aerobic and anaerobic conditions. |
|---------------------|---|

Section 13: Disposal Considerations

Treat or dispose of waste material as a weak acid in accordance with all local, state/provincial, and national requirements.

Section 14: Transportation Information

| | |
|---------------------------------|--|
| Product Label: | Vinegar. |
| DOT Shipping Name: | Not applicable |
| Technical Shipping Name: | Not applicable |
| DOT Hazard Class: | Not applicable |
| UN Number: | Not applicable for vinegar containing less than 25% acetic acid, provided packaging complies with ADR Special Provision 647; UN2790 for vinegar containing more than 25% acetic acid |
| Product RQ (lbs): | Quantity containing the equivalent of 5000 lb of 100% acetic acid, (16,667 lb of vinegar containing 30% acetic acid) |
| DOT Label: | Not applicable |

Section 15: Regulatory Information

Canadian Disclosure List:

Acetic Acid (64-19-7)

Comprehensive Environmental Response, Compensation, & Liability Act (CERCLA):

Acetic Acid (64-19-7)

Food & Drug Administration (FDA)

Product is a GRAS (Generally Recognized as Safe) food ingredient.

Section 16: Other Information

Not Available

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|---------------------------|-----------------------|------------------------|
| Woeber Mustard Co. | Revision Date 6/19/17 | Revision Number – 3 |
|---------------------------|-----------------------|------------------------|