



Safety Data Sheet

Issue Date: 28-Sep-2010

Revision Date: 06-Mar-2014

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Freez-Kontr'l® 95/5

Other means of identification

Product Number 4188-03, 4188-06

Recommended use of the chemical and restrictions on use

Recommended Use Closed system anti-freeze agent.

Details of the supplier of the safety data sheet

Supplier Address

Nu-Calgon
2008 Altom Court
St. Louis, MO 63146
www.nucalgon.com

Emergency Telephone Number

Company Phone Number 314-469-7000

800-554-5499

Emergency Telephone (24 hr) Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Appearance Light blue liquid

Physical State Liquid

Odor Nearly odorless

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

Unknown Acute Toxicity

1.47% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|------------------|---------|----------|
| Propylene Glycol | 57-55-6 | 80-100 |

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

| | |
|---------------------|--|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention. |
| Skin Contact | In case of contact, immediately wash skin with soap and water or water for at least 15 minutes. Take off contaminated clothing. If skin irritation persists, call a physician. |
| Inhalation | Remove to fresh air. Not expected to be a problem. |
| Ingestion | Dilute by giving a large amount of water. If ingestion of a large amount does occur, call a poison control center immediately. |

Most important symptoms and effects

| | |
|-----------------|---|
| Symptoms | May cause skin and eye irritation. Ingestion may cause nervous system depression. |
|-----------------|---|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|--|
| Notes to Physician | In case of ingestion, monitor for acidosis and central nervous system changes. Exposed persons with previous kidney dysfunction may require special treatment. |
|---------------------------|--|

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray (fog). Carbon dioxide (CO₂). Foam. Dry chemical. Any "ABC" class.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Containers may explode when heated.

Hazardous Combustion Products Carbon oxides. Aldehydes.

Sensitivity to Mechanical Impact Not sensitive.

Sensitivity to Static Discharge Not sensitive.

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. Keep unnecessary people away; isolate hazard area and deny entry. Use water spray to keep fire-exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Personal Precautions** Use personal protective equipment as required. Remove all sources of ignition. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.
- Environmental Precautions** Do not release into sewers or waterways.

Methods and material for containment and cleaning up

- Methods for Containment** Prevent further leakage or spillage if safe to do so.
- Methods for Clean-Up** Contain and collect with an inert absorbent and place into an appropriate container for disposal. Wash area with soap and water.

7. HANDLING AND STORAGE

Precautions for safe handling

- Advice on Safe Handling** Do not eat, drink, smoke, or apply cosmetics while handling this product. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

- Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store only in approved containers. Store away from incompatible materials. Protect from light. Store between 15°C to 30°C.
- Incompatible Materials** Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Exposure Guidelines** No exposure limits noted for ingredient(s)

Appropriate engineering controls

- Engineering Controls** Ventilation systems.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Tight sealing safety goggles.
- Skin and Body Protection** Wear suitable gloves.
- Respiratory Protection** Not normally required for routine use of this product. A NOISH certified air-purifying respirator may be used under conditions where airborne concentrations are expected to be excessive. Protection provided by air-purifying respirators is limited. Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. A respiratory program that meets OSHA 29CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

- General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | | | |
|-----------------------|-------------------|-----------------------|-----------------|
| Physical State | Liquid | Odor | Nearly odorless |
| Appearance | Light blue liquid | Odor Threshold | Not determined |
| Color | Light blue | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|-------------------------------------|--------------------|-------------------------|
| pH | Not determined | |
| Melting Point/Freezing Point | -60 °C / -76 °F | |
| Boiling Point/Boiling Range | 182 °C / 360 °F | |
| Flash Point | 99 °C / 211 °F | |
| Evaporation Rate | Not available | |
| Flammability (Solid, Gas) | n/a-liquid | |
| Upper Flammability Limits | Not determined | |
| Lower Flammability Limit | Not determined | |
| Vapor Pressure | 0.1 mm Hg | |
| Vapor Density | 2.6 | (Air=1) |
| Specific Gravity | 1.04 | |
| Water Solubility | Completely soluble | |
| Solubility in other solvents | Not determined | |
| Partition Coefficient | Not determined | |
| Auto-ignition Temperature | 371 °C / 700 °F | |
| Decomposition Temperature | Not determined | |
| Kinematic Viscosity | Not determined | |
| Dynamic Viscosity | Not determined | |
| Explosive Properties | Not determined | |
| Oxidizing Properties | Not determined | |

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

| | |
|---------------------------------|--|
| Hazardous Polymerization | Hazardous polymerization does not occur. |
|---------------------------------|--|

Conditions to Avoid

Heat, flames, ignition sources and incompatibles.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Carbon oxides. Aldehydes.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

| | |
|---------------------|----------------------------------|
| Eye Contact | Avoid contact with eyes. |
| Skin Contact | Avoid contact with skin. |
| Inhalation | Avoid breathing vapors or mists. |
| Ingestion | Do not taste or swallow. |

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-----------------------------|-----------------------|--------------------------|-----------------|
| Propylene Glycol 57-55-6 | = 20000 mg/kg (Rat) | = 20800 mg/kg (Rabbit) | - |

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity 1.47% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|-----------------------------|---|---|----------------------------|--|
| Propylene Glycol 57-55-6 | 19000: 96 h Pseudokirchneriella subcapitata mg/L EC50 | 51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50 | | 10000: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50 Static |

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

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 | Disposal should be in accordance with applicable regional, national and local laws and regulations. |

14. TRANSPORT INFORMATION

| | |
|--------------------|---------------|
| <u>DOT</u> | Not regulated |
| <u>IATA</u> | Not regulated |
| <u>IMDG</u> | Not regulated |

15. REGULATORY INFORMATION

International Inventories

Not determined

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

US State Regulations

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|-----------------------------|------------|---------------|--------------|
| Propylene Glycol 57-55-6 | X | | X |

16. OTHER INFORMATION

| | | | | |
|--------------------|-----------------------|---------------------|-------------------------|----------------------------|
| <u>NFPA</u> | Health Hazards | Flammability | Instability | Special Hazards |
| | 0 | 1 | 1 | Not determined |
| <u>HMIS</u> | Health Hazards | Flammability | Physical Hazards | Personal Protection |
| | 0 | 1 | 1 | Not determined |

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Revision Note: New format

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 information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet