SAFETY DATA SHEET

Issue Date: 15-Mar-2017 **Version** 1

1. IDENTIFICATION

Product Identifier
Product Name Kleensafe

Other means of identification
SDS # **KLEENSAFE_**

Other Information Package type: 1, 5, 55 gal.

Recommended use of the chemical and restrictions on use
Recommended Use Cleaning aluminum finned cooling and heating coils.
Restrictions on Use For professional use only. Product is a concentrate and should be diluted prior to use.

Details of the supplier of the safety data sheet
Distributed by:
National Refrigeration Products
985 Wheeler Way
Langhorne, PA 19047 USA

Emergency telephone number
Company Phone Number **1-800-352-6951**

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

Serious eye damage/eye irritation	Category 2

Signal Word
Warning

Hazard Statements
Causes severe eye irritation

Appearance Clear liquid **Physical State** Liquid **Odor** Characteristic

Precautionary Statements – Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear eye/face protection

Precautionary Statements – Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Hazards not otherwise classified (HNOC)
Not Applicable

Other Information
Not Applicable

3. COMPOSTION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
dipropylene glycol monomethyl ether (DPM)	34590-94-8	<15
Proprietary Surfactant Blend	Proprietary	<10
Sodium carbonate	497-19-8	<5
Citric Acid	77-92-9	<5

4. FIRST AID MEASURES

First aid measures

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Eye contact Immediately flush with plenty of water for up to 15 minutes. Get medical attention.

Ingestion Drink plenty of water. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Seek medical attention immediately.

Skin Contact Get medical attention if irritation develops or persists.

Most important symptoms and effects, both acute and delayed

Symptoms May cause severe eye irritation. May cause gastrointestinal irritation, nausea, diarrhea, and vomiting. Vapor causes irritation to nasal and respiratory passages.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Dry chemical, CO2 or water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific hazards arising from the chemical
Not determined.

Hazardous combustion products Carbon oxides.

Protective equipment and precautions for firefighters

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods for cleaning up Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up. Keep container tightly closed.

Incompatible materials None known based on information supplied

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
dipropylene glycol monomethyl ether (DPM) 34590-94-8	STEL: 150 ppm TWA: 100 ppm S*	TWA: 100 ppm TWA: 600 mg/m3 (vacated) TWA: 100 ppm (vacated) TWA: 600 mg/m^3 (vacated) STEL: 150 ppm (vacated) STEL: 900 mg/m^3 (vacated) S* S*	IDLH: 600 ppm TWA: 100 ppm TWA: 600 mg/m^3 STEL: 150 ppm STEL: 900 mg/m^3
Citric Acid 77-92-9	-	15 mg/m^3 (Total)	-

Appropriate engineering controls

Engineering Controls Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS.

Individual protection measures, such as personal protective equipment

Eye/face Protection Use tight fitting, splash proof safety goggles. Contact lenses should not be worn when handling this material. Face Mask.

Skin and Body Protection Wear suitable protective clothing and footwear appropriate for the risk of exposure. Wear protective Neoprene™ gloves.

Respiratory Protection Ensure adequate ventilation, especially in confined areas.

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
Appearance Clear liquid
Color Water Clear
Odor Characteristic
Odor threshold Not determined

Property	Values	Remarks • Method
pH	8.0-10.0	
Melting point/freezing point	Not determined	
Flash point	Not determined	
Evaporation rate	Not determined	
Flammability (solid, gas)	Not determined	
Flammability Limits in Air	Not determined	
Upper flammability limits	Not determined	
Lower flammability limits	Not determined	
Vapor pressure	Not determined	
Vapor density	Not determined	
Specific gravity	1.01-1.03	
Water solubility	Not determined	
Solubility in other solvents	Not determined	
Partition in other solvents	Not determined	
Partition coefficient	Not determined	
Autoignition temperature	Not determined	

Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not determined
Oxidizing properties	Not determined

Other Information

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.

Conditions to avoid
Keep out of reach of children.

Incompatible materials
None known based on information supplied.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation to the mucous membranes and upper respiratory tract.
Eye contact	Causes severe eye irritation.
Skin Contact	May cause temporary irritation on skin contact.
Ingestion	May cause gastrointestinal irritation, nausea, diarrhea, and vomiting.

Component Information

Chemical Name	Oral	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
dipropylene glycol monomethyl ether (DPM) 34590-94-8	= 5230 mg/kg (Rat)	= 9500 mg/kg (Rabbit)	-
Sodium carbonate 497-19-8	4090 mg/kg (Rat)	-	-
Citric Acid 77-92-9	= 3000 mg/kg (Rat)	-	-

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 – Product
Not determined

The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (oral) 12920 mg/kg
ATEmix (dermal) 26042 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

All raw materials selected from DfE (Safer Choice) approved list.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
dipropylene glycol monomethyl ether (DPM) 34590-94-8		10000: 96 h Pimephales promelas mg/L LC50 static		1919: 48 h Daphnia magna mg/L LC50
Sodium carbonate 497-19-8	242: 120 h Nitzschia mg/L EC50	300: 96 h Lepomis macrochirus mg/L LC50 static 310 - 1220: 96 h Pimephales promelas mg/L LC50 static		265: 48 h Daphnia magna mg/L EC50
Citric Acid 77-92-9		1516: 96 h Lepomis macrochirus mg/L LC50 static		120: 72 h Daphnia magna mg/L EC50

Persistence and degradability
Not determined

Bioaccumulation
Not determined

Mobility
Not determined

Chemical Name	Partition coefficient
dipropylene glycol monomethyl ether (DPM) 34590-94-8	-0.064
Citric Acid 77-92-9	-1.72

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.

Chemical Name	California Hazardous Waste Status
Sodium carbonate 497-19-8	Corrosive

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories
Not determined

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*
ENCS *- Japan Existing and New Chemical Substances*
IECSC *- China Inventory of Existing Chemical Substances*
KECL *- Korean Existing and Evaluated Chemical Substances*
PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

U.S. Federal Regulations

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
dipropylene glycol monomethyl ether (DPM)	34590-94-8	<15	1.0

SARA 311/312 Hazard Categories

U.S. State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
dipropylene glycol monomethyl ether (DPM) 34590-94-8	X	X	X

U.S. EPA Label Information

16. OTHER INFORMATION

NFPA	**Health hazards**	**Flammability**	**Instability**	**Special Hazards**
	Not determined	Not determined	Not determined	Not determined
HMIS	**Health hazards**	**Flammability**	**Physical hazards**	**Personal protection**
	1	0	0	X

Issue Date: 01-Jun-2010
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Revision Note: Corrections

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