

MATERIAL SAFETY DATA SHEET

RESIN KLEEN

DATE PREPARED: 4/10/96

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

Formula : CH300C(CH2)n-COOCH3, n-2, 3 and 4
 Molecular Weight : Avg. 159

Manufacturer/Distributor

Environmental Services Group
 P. O. Box 1302
 Englewood Cliffs, NJ 07632

Phone Numbers

Product Information: 1-800-877-2436
 Transport Emergency: 1-800-255-3924

COMPOSITION/INFORMATION ON INGREDIENTS

Components

<u>MATERIAL</u>	<u>CAS Number</u>	<u>%</u>
Dimethyl Glutarate	1119-40-0	55-65
Dimethyl Adipate	627-93-0	10-15
Dimethyl Succinate	106-65-0	15-25

HAZARDS IDENTIFICATION

Potential Health Effects

RESIN KLEEN may irritate skin, eyes, nose and throat. May cause blurry vision.

Human Health Effects:

Skin contact may cause skin irritation with discomfort or rash.
 Eye contact may cause eye irritation with discomfort, tearing, or blurring of vision.
 Inhalation may cause irritation of the upper respiratory passages, with coughing and discomfort. Some individuals who have been overexposed by inhalation or skin contact experienced blurry vision.

The mechanism of blurred vision in humans is unknown.
 Based on observed effects from animal studies, we believe that some symptoms of pre-existing eye disease could be aggravated by overexposure to this material.

HAZARDS IDENTIFICATION Cont'd.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

FIRST AID MEASURES

First AidInhalation

If inhaled, immediately remove to fresh air. If not breathing, give artificial respiration.

If breathing is difficult, give oxygen. Call a physician.

Skin Contact

Flush skin with water after contact. Wash contaminated clothing before reuse.

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

Ingestion

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

Notes to Physicians

Activated charcoal mixture may be beneficial. Suspend 50 g activated charcoal in 400 ml water and mix well. Administer 5 ml/kg, or 350 ml for an average adult.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point	:	100 C (212 F)
Method	:	TCC
Flammable Limits In Air, % By Volume		
LEL	:	0.9
UEL	:	8.0
Autoignition	:	370 C (698 F)

Actual Autoignition Temperature (AIT) can be affected by the concentration of vapors and oxygen, vapor/air contact time, pressure, volume, catalytic impurities, etc. Process conditions should be analyzed to determine if the AIT's may be higher or lower.

FIRE FIGHTING MEASURES Cont'd.

Vapor forms explosive mixture with air. Hazardous gases/ vapors produced in fire are carbon monoxide.

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO₂.

Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus.

Wear full protective equipment. Cool tank/container with water spray.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Initial Containment

Remove source of heat, sparks, flame, impact, friction or electricity. Dike spill. Prevent material from entering sewers, waterways, or low areas.

Spill Clean Up

Recover free liquid for reuse or reclamation. Recover undamaged and minimally contaminated material for reuse and reclamation. Soap up with sawdust, sand, oil dry or other absorbent material.

HANDLING AND STORAGE

Handling (Personnel)

Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling.

Storage

Do not mix with strong oxidants, acids, or alkalies. Store in a well ventilated place. Keep container tightly closed.

EXPOSURE CONTROLS/PERSONAL PROTECTION Cont'd.

Personal Protective EquipmentEye/Face Protection

Wear safety glasses. Wear coverall chemical splash goggles when possibility exists for eye and face contact due to splashing or spraying material.

Respirator

A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Protective Clothing

Wear impervious clothing, such as gloves, apron, boots, or whole bodysuit as appropriate.

Recommended glove and clothing material: Butyl Rubber.

Exposure GuidelinesExposure Limits

PEL (OSHA)	:	None Established
TLV (ACGIH)	:	None Established
AEL *	:	1.5 ppm, 10 mg/m ³ , 8 Hr. TWA
		This limit is for mixture.

* AEL - Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point	:	196-225 C (385-437 F)
Vapor Pressure	:	0.2 mm Hg @ 20 C (68 F)
Melting Point	:	~-20 C (~-4 F)
% Volatiles	:	100 WT % @ 20 C (68 F)
Evaporation Rate	:	<0.1 (Butyl Acetate=1.0)
Solubility in Water	:	5.3 WT % @ 20 C (68 F)
Odor	:	Sweet
Odor Threshold	:	0.1 ppm 100% detection 0.01 ppm 50% detection
Form	:	Liquid
Color	:	Colorless
Specific Gravity	:	1.092 @ 20 C (68 F)

STABILITY AND REACTIVITY

Chemical Stability

Stable.

Incompatibility with Other Materials

Incompatible or can react with strong oxidizers, acids, alkalies.

Decomposition

Decomposes with heat.

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

Inhalation 4-hour LC50	:	>11 mg/L in rats
Inhalation 1-hour LC50	:	>10.7 mg/L in rats
Skin absorption LD50	:	>2,250 mg/kg in rabbits
Oral LD50	:	8,191 mg/kg in rats

The mixture is a mild to severe skin irritant and a moderate eye irritant, but is not a skin sensitizer in animals. Toxic effects described in animals from exposure by inhalation include upper respiratory tract irritation. A single 4-hour exposure to 60 ppm caused transient corneal opacity and transient increases in the distance from the cornea to the anterior surface of the lens of the eye. Toxicity described in animals from repeated exposure by inhalation include decreased weight gain, absolute and relative liver weight decrease, and degeneration of olfactory epithelium (nasal tissue). Toxicity described in animals from repeated exposure by ingestion include weight loss, but there were no pathological abnormalities noted.

A single application of 10 uL to the eye caused corneal opacity. The administration of 10-100 uL of a similar mixture caused corneal opacity, transient increases in corneal thickness, and transient corneal anesthesia. A single application of approximately 60 mg/kg to the skin caused transient increases in the distance from the cornea to the anterior surface of the lens of the eye.

The mixture does not produce genetic damage in animals, or in bacterial cell cultures, but it was positive in one study with cultured mammalian cells. Animal testing indicates that this mixture does not have developmental, or reproductive effects.

ECOLOGICAL INFORMATION

Ecological Information

Aquatic Toxicity:

48-hour LC50 - Fathead minnows: 18-24 mg/L.
Moderately toxic.

48-hour LC50 - Daphnia magna: 112-150 mg/L

DISPOSAL CONSIDERATIONS

Disposal

Production, storage, transportation, and disposal must be in accordance with State/Provincial, and Local regulations. Recover nonhazardous waste in approved and permitted incinerator. Recover nonhazardous waste in approved and permitted biological treatment system. Recover hazardous waste in approved and permitted biological treatment system. Do not discharge to surface water or sanitary sewer system.

TRANSPORTATION INFORMATION

Transportation Information

NOT REGULATED AS A HAZARDOUS MATERIAL

REGULATORY INFORMATION

Regulatory Information

CA Inventory Status : Reported/Incinerated

TABLE III HAZARD CLASSIFICATIONS SECTION