

SAFETY DATA SHEET

Remover Gel (ethanol based)

SECTION 1-IDENTIFICATION

Product Identifier:	Nail Polish
Manufacturer:	Mad River Science 2736 Clay Road Mckinleyville, CA 95519
Product Type:	Nail Polish Remover
Chemical Name:	Ethyl Alcohol with Additives
Chemical Family:	Water-soluble solvents
CAS No:	Mixture/Not Hazardous

SECTION 2 – HAZARDOUS INGREDIENTS.

Components	CAS Number	INCI Name	Exposure Limits	MAX%
Ethanol	64-17-5	Ethyl Alcohol	OSHA PEL 200ppmTWA	99.0
			OSHA VPEL 200ppm TWA (skin)	
			OSHA VPEL 250ppm STEL (skin)	
			ACGIH TLV 200 ppm TWA (skin)	
			ACGIH TLV 250 ppm STEL (skin)	

SECTION 3 - COMPOSITION

Components	CAS Number	INCI Name	MAX %
Klucel H	9004-64-2	Hydroxypropylcellulose	1.00

SECTION 4 – FIRST AID MEASURES

<p>Appearance: colorless clear liquid. Flash Point: 16.6 deg C.</p> <p>Warning! Causes severe eye irritation. Flammable liquid and vapor. Causes respiratory tract irritation. This substance has caused adverse reproductive and fetal effects in humans. May cause central nervous system depression. May cause liver, kidney and heart damage. Causes moderate skin irritation.</p> <p>Potential Health Effects</p> <p>Eye: Causes severe eye irritation. May cause painful sensitization to light. May cause chemical conjunctivitis and corneal damage.</p> <p>Skin: Causes moderate skin irritation. May cause cyanosis of the extremities.</p> <p>Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause systemic toxicity with acidosis. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.</p> <p>Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation.</p> <p>Chronic: May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects. Animal studies have reported the development of tumors. Prolonged exposure may cause liver, kidney, and heart damage.</p> <p>Effects of Overexposure</p> <p>General: This product has shown very few toxic symptoms in humans. The most common when repeatedly exposed to high concentrations of material are inebriation, nausea and skin rashes. Vapors or direct eye contact may cause irritation. Acute and repeated overexposure to vapors as may occur when heated or burned may cause nausea, dizziness or flu-like symptoms</p> <p>Inhalation: High vapor concentrations may cause headache, dizziness, and sedation.</p> <p>Eyes: Low hazard for usual industrial/commercial handling by trained personnel. May cause mild eye irritation with accompanying stinging, tearing, and redness.</p> <p>Skin: May cause mild skin irritation. Prolonged or repeated contact may cause redness, burning, drying and cracking of the skin.</p> <p>Ingestion: Swallowing this material in quantities greater than several milliliters would be very difficult to do because of the presence of Bitrex, a bitter tasting compound. Accidental ingestion of small amounts</p>

may cause discomfort in the throat and stomach or inebriation. In the event of swallowing, do not induce vomiting. Seek immediate medical care.

Primary Routes of Exposure: Eye/skin contact. Inhalation. Skin Absorption.

Conditions Aggravated by Exposure: None specific to product.

SECTION 5- FIRE-FIGHTING MEASURES

General Information: Replace fluid and electrolytes. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Flash Point: 16.6 deg C (61.88 deg F)

Autoignition Temperature: 363 deg C (685.40 deg F)

Explosion Limits, Lower:3.3 vol %

Upper: 19.0 vol %

NFPA Rating: (estimated) Health: 2; Flammability: 3; Instability: 0 **Extinguishing Agents:** Foam, carbon dioxide, dry powder.

Fire Fighting Instructions: Water may be ineffective but may be used to keep fire-exposed containers cool until fire is out. Wear self-contained breathing apparatus when fighting fires in enclosed areas or when exposure to smoke and gases could occur (including cleanup/salvage operations). The apparatus should consist of a full face-piece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

Fire and Explosion Hazards: Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drums-even empty drums- because product or its residue can ignite explosively.

SECTION 6- ACCIDENTAL RELEASE MEASURES

Small spill: Absorb liquid on vermiculite, floor absorbent or other absorbent material. Store used absorbent in air-tight containers away from ignition sources.

Large spill: Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks, non spark-proof electrical outlets and switches). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred.

SECTION 7 – HANDLING AND STORAGE

Normal Processing: Suitable controls should be used to control process emissions. Employees should wash before eating or smoking. If clothing or shoes become contaminated, wash before reuse.

Storage: Store at temperatures between 50-100 deg F. Do not allow to freeze.

Minimize contact with air to reduce contamination with mold, fungus and other organisms which could cause decomposition or spoilage.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Hazard Codes:

NFPA 704 (*):

HMIS(**):

Health	1	Health	1
Flammability	3	Flammability	3
Reactivity	0	Reactivity	0
Special	None	Personal Protection	B(Gloves, goggles)

* NFPA=National Fire Protection Association hazard rating system based on severity of hazard under fire conditions.

** HMIS=Hazardous Materials Identification System based on National Paint and Coatings Association criteria for the product as delivered..

Ventilation: Use local exhaust ventilation to control mists or vapors generated if product is spray-applied. Ventilation must keep exposures below regulated limits.

Respiratory Protection: None normally required. If exposures are anticipated to be excessive, appropriate respirators should be selected by a qualified individual.

Eye Protection: Safety glasses. Use chemical safety goggles if splashing could occur.

Special Protective Equipment: Gloves suitable for use in water and chemically resistant should be worn when contact is expected.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear and colorless with a water-like viscosity, readily diluted with water.
Appearance: colorless
Odor: Mild, rather pleasant, like wine or whis
pH: Not available.
Vapor Pressure: 59.3 mm Hg @ 20 deg C
Vapor Density: 1.59
Evaporation Rate: Not available.
Viscosity: 1.200 cP @ 20 deg C
Boiling Point: 78 deg C
Freezing/Melting Point: -114.1 deg C
Decomposition Temperature: Not available.
Solubility: Miscible.
Specific Gravity/Density: 0.790 @ 20°C
Molecular Formula: C ₂ H ₅ OH
Molecular Weight: 46.0414

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, ignition sources, excess heat, oxidizers.
Incompatibilities with Other Materials: Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Hazardous Polymerization: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 64-17-5: KQ6300000

CAS# 7732-18-5: ZC0110000

LD50/LC50:

CAS# 64-17-5:

Draize test, rabbit, eye: 500 mg Severe;
Draize test, rabbit, eye: 500 mg/24H Mild;
Draize test, rabbit, skin: 20 mg/24H Moderate;
Inhalation, mouse: LC50 = 39 gm/m³/4H;
Inhalation, rat: LC50 = 20000 ppm/10H;
Oral, mouse: LD50 = 3450 mg/kg;
Oral, rabbit: LD50 = 6300 mg/kg;
Oral, rat: LD50 = 7060 mg/kg;
Oral, rat: LD50 = 9000 mg/kg;

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg;

Carcinogenicity:

CAS# 64-17-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: Ethanol has been shown to produce fetotoxicity in the embryo or fetus of laboratory animals. Prenatal exposure to ethanol is associated with a distinct pattern of congenital malformations that have collectively been termed the "fetal alcohol syndrome".

Teratogenicity: Oral, Human - woman: TDLo = 41 gm/kg (female 41 week(s) after conception) Effects on Newborn - Apgar score (human only) and Effects on Newborn - other neonatal measures or effects and Effects on Newborn - drug dependence.

Reproductive Effects: Intrauterine, Human - woman: TDLo = 200 mg/kg (female 5 day(s) pre-mating) Fertility - female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated).

Mutagenicity: DNA Inhibition: Human, Lymphocyte = 220 mmol/L.; Cytogenetic Analysis: Human, Lymphocyte = 1160 gm/L.; Cytogenetic Analysis: Human, Fibroblast = 12000 ppm.; Cytogenetic Analysis: Human, Leukocyte = 1 pph/72H (Continuous).; Sister Chromatid Exchange: Human, Lymphocyte = 500 ppm/72H (Continuous).

Neurotoxicity: No information found

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: Fish: Rainbow trout: LC50 = 12900-15300 mg/L; 96 Hr; Flow-through @ 24-24.3°C Fish: Rainbow trout: LC50 = 11200 mg/L; 24 Hr; Fingerling (Unspecified) Bacteria: Phytobacterium phosphoreum: EC50 = 34900 mg/L; 5-30 min; Microtox test When spilled on land it is apt to volatilize, biodegrade, and leach into the ground water, but no data on the rates of these processes could be found. Its fate in ground water is unknown. When released into water it will volatilize and probably biodegrade. It would not be expected to adsorb to sediment or bioconcentrate in fish.

Environmental: When released to the atmosphere it will photodegrade in hours (polluted urban atmosphere) to an estimated range of 4 to 6 days in less polluted areas. Rainout should be significant.

Physical: No information available.

Other: No information available

SECTION 13- DISPOSAL CONSIDERATION

Small spill: Absorb liquid on vermiculite, floor absorbent or other absorbent material. Store used absorbent in air-tight containers away from ignition sources.

Large spill: Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks, non spark-proof electrical outlets and switches). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Prevent run-

off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred.

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

SECTION 14 – TRANSPORT INFORMATION

DOT Proper Shipping Name: Ethanol
DOT Primary Hazard Classification: 3
UN/NA Hazard No.: UN1170
EPA/DOT Reportable Quantity: NA
DOT Labels: None Required

SECTION 15 – REGULATORY INFORMATION

US FEDERAL

TSCA

CAS# 64-17-5 is listed on the TSCA inventory.

CAS# 7732-18-5 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 64-17-5: immediate, delayed, fire.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 64-17-5 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

WARNING: This product contains Ethyl alcohol, a chemical known to the state of California to cause developmental reproductive toxicity.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: F

Risk Phrases: R 11 Highly flammable.

Safety Phrases:

- S 16 Keep away from sources of ignition - No smoking.
- S 33 Take precautionary measures against static discharges.
- S 7 Keep container tightly closed.
- S 9 Keep container in a well-ventilated place.

WGK (Water Danger/Protection)

- CAS# 64-17-5: 0
- CAS# 7732-18-5: No information available.

Canada - DSL/NDSL

- CAS# 64-17-5 is listed on Canada's DSL List.
- CAS# 7732-18-5 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 64-17-5 is listed on the Canadian Ingredient Disclosure List.

SECTION XIV – EUROPEAN/INTERNATIONAL REGULATIONS**European Labeling in Accordance with EC Directives****Hazard Symbols:**

F

Risk Phrases:

- R 11 Highly flammable.

Safety Phrases:

- S 16 Keep away from sources of ignition - No smoking.
- S 33 Take precautionary measures against static discharges.
- S 7 Keep container tightly closed.
- S 9 Keep container in a well-ventilated place.

WGK (Water Danger/Protection)

- CAS# 64-17-5: 0
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Canada - DSL/NDSL

- CAS# 64-17-5 is listed on Canada's DSL List.
- CAS# 7732-18-5 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 64-17-5 is listed on the Canadian Ingredient Disclosure List.

CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 67-56-1: OEL-ARAB Republic of Egypt:TWA 200 ppm (260 mg/m³);Skin OEL-AUSTRALIA:TWA 200 ppm (260 mg/m³);STEL 250 ppm;Skin OEL-BELGIUM:TWA 200 ppm (262 mg/m³);STEL 250 ppm;Skin OEL-CZECHOSLOVAKIA:TWA 100 mg/m³;STEL 500 mg/m³ OEL-DENMARK:TWA 200 ppm (260 mg/m³);Skin OEL-FINLAND:TWA 200 ppm (260 mg/m³);STEL 250 ppm;Skin OEL-FRANCE:TWA 200ppm (260 mg/m³);STEL 1000 ppm (1300 mg/m³) OEL-GERMANY:TWA 200 ppm (260 mg/m³);Skin OEL-HUNGARY:TWA 50 mg/m³;STEL 100 mg/m³;Skin JAN9 OEL-JAPAN:TWA 200 ppm (260 mg/m³);Skin OEL-THE NETHERLANDS:TWA 200 ppm (260 mg/m³);Skin OEL-THE PHILIPPINES:TWA 200 ppm (260 mg/m³) OEL-POLAND:TWA 100 mg/m³ OEL-RUSSIA:TWA 200 ppm;STEL 5 mg/m³;Skin OEL-SWEDEN:TWA 200 ppm (250 mg/m³);STEL 250 ppm (350 mg/m³);Skin OEL-SWITZERLAND:TWA 200 ppm (260 mg/m³);STEL 400 ppm;Skin OEL-THAILAND:TWA 200 ppm (260 mg/m³) OEL-TURKEY:TWA 200 ppm (260 mg/m³) OEL-UNITED KINGDOM:TWA 200 ppm (260

mg/m3);STEL 250 ppm;Skin OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

SECTION 16- OTHER INFORMATION

Date of Preparation: September 9, 2021

User's Responsibility: This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of user's operation must be examined to determine if, when and where, additional precautions may be necessary. All health and safety information contained in this bulletin must be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.

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