



MATERIAL SAFETY DATA SHEET

Product: 70-7817

Vitamin D Calibration Stock

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The following information is believed to be accurate and is currently the best information available to us. However, we make no warranties, express or implied, with respect to the information supplied and we assume no liability resulting from its use.

2. HAZARDOUS IDENTIFICATION

HAZARD CLASS	Irritant		NFPA	HMIS
Eyes:	Irritant	HEALTH	0	2
Skin:	Irritant	FLAMMABILITY	3	3
Ingestion:	Irritant	REACTIVITY	0	0
Inhalation:	Irritant	NFPA SPECIAL HMIS PPE	-	-

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	Ethyl Alcohol	Isopropyl Alcohol	Water
PERCENT (%)	44 - 50	2 - 3	48 - 50
CAS NO.	CAS # 64-17-5	CAS # 67-63-0	CAS # 7733-18-5
EINECS NO.	200-578-6	No information available	No information available
RISKS	R11, R61	R11, R36, R67	No information available
SAFETY	S7, S16	S7, S16, S24, S25, S26	No information available

Contains Vitamin D₂ and D₃ in trace amounts.



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4. FIRST AID MEASURES

- GENERAL:** Remove contaminated clothing, wash thoroughly before reuse.
- EYES:** Flush with water for at least 15 minutes occasionally raising upper and lower eyelids.
- SKIN:** Remove contaminated clothing and flush with water thoroughly
- INHALATION:** Vapors may be irritating to respiratory system.
- INGESTION:** If large amounts are swallowed, induce vomiting, get medical help immediately.

5. FIRE FIGHTING MEASURES

- UNUSUAL FIRE AND EXPLOSION:** Highly flammable in presence of open flames, sparks and static discharge, of shocks, of heat, of oxidizing materials.
- HAZARDS:** Emits oxides of carbon.
- EXTINGUISHING MEDIA:** Flammable liquid, soluble or dispersed in water.
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build up, auto-ignition or explosion.
- SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus, and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

- Ventilate area.
Wear appropriate personal protective clothing and equipment. Avoid breathing vapors.
Contain spill. Scoop up using non-sparking tools and store in a suitable waste container.
Wash contaminated areas with soap and water.

7. HANDLING AND STORAGE

- Keep away from heat, sparks and flame. Keep container closed. Keep container in a cool, well-ventilated area. Do not get in eyes, on skin, or on clothing. Do not ingest. Do not breathe gas/fumes/vapor/spray. Keep container tightly closed
Use good laboratory practice when working with any chemical whether it is considered hazardous or not.



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8. EXPOSURE CONTROL/PERSONAL PROTECTION

ROUTES OF ENTRY

INHALATION: Yes

SKIN: Yes

INGESTION: Yes

HEALTH HAZARDS

ACUTE: Vapors may be irritating to skin, eyes, nose and throat.

CHRONIC: Chronic irritation of exposed tissues.

VENTILATION

LOCAL EXHAUST: Good laboratory ventilation is acceptable.

MECHANICAL (GENERAL): Use in hoods if possible

SPECIAL: None

OTHER: None

PROTECTIVE CLOTHING OR EQUIPMENT

GLOVES: Disposable laboratory gloves are adequate

EYE PROTECTION: Glasses or goggles.

RESPIRATORY: Use an approved full face respirators with multi-purpose cartridges

OTHER: Lab coats

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless Liquid

ODOR: Mild whiskey odor

pH: No information available

MOLECULAR WEIGHT: No information available

MELTING POINT: No information available

BOILING POINT: No information available

AUTOIGNITION TEMPERATURE: No information available

FLASH POINT: 21 ° C

LOWER EXPLOSION LIMIT: 3.3 %

UPPER EXPLOSION LIMIT: 19 %

SPECIFIC GRAVITY: 0.9



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10. STABILITY & REACTIVITY

STABILITY/CONDITIONS TO AVOID: This is a stable chemical. Avoid heat, temperature extremes, and direct sunlight.

INCOMPATIBILITY (MATERIALS TO AVOID): Acid chlorides, silver salts, metal hydrides, bases, oxidizing agents, reducing agents, alkali metals.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Oxides of carbon

HAZARDOUS POLYMERIZATION: Not Applicable

11. TOXICOLOGY INFORMATION

PRODUCT TOXICOLOGY INFORMATION:

SYMPTOMS AND SIGNS OF EXPOSURE: May cause nose and throat irritation, asphyxiation, nausea, chest pain, convulsions and liver, kidney damage.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Unknown

EMERGENCY AND FIRST AID PROCEDURES: In case of contact, wash skin with copious amounts of water.
Flush eyes with copious amounts of water for at least 15 minutes.
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Submit to medical examination.

CARCINOGENICITY: Not Applicable

RTECS #: KQ6300000(ethyl alcohol), NT8050000 (isopropyl alcohol)

ACGIH TLV TWA: 2460 mg/m³ TWA (ethyl alcohol), 460 mg/m³ TWA (isopropyl alcohol)

OSHA PEL: 1900 mg/m³ TWA (ethyl alcohol), 980 mg/m³ (isopropyl alcohol)

NTP: No data found

IARC Monographs: No data found

HAZARDOUS COMPONENT TOXICOLOGY INFORMATION:

Hazardous Components:	Ethyl Alcohol	Isopropyl Alcohol
RTECS #	KQ6300000	NT8050000
OSHA PEL	1900 mg/m ³ TWA	980 mg/m ³
ACGIH TLV	2460 mg/m ³ TWA	460 mg/m ³ TWA

TOXICITY DATA

Ethyl alcohol: oral rat LD50: 7060 mg/kg; inhalation rat LC50: 20,000 ppm/10H; irritation data, eye, rabbit: 500 mg/24H moderate; investigated as a tumorigen, mutagen, reproductive effector.

Isopropyl alcohol: oral rat LD50: 5045 mg/kg; inhalation rat: 16,000 ppm/8H; skin rabbit: LD50: 12.8 gm/kg; investigated as a tumorigen, mutagen, reproductive effector.

Ethanol has been linked to birth defects in humans.

Ethanol has been linked to cancer in humans. Chronic ethanol ingestion is associated with liver cancer. Most industrial ethanol contains denaturants that render it undesirable to drink.



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12. ECOLOGICAL INFORMATION

Following data for ethanol: when released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material is expected to readily biodegrade. When released into the water, this material may evaporate to a moderate extent. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to be readily removed from the atmosphere by dry and wet deposition. When released into the air, this material is expected to have a half-life between 1 and 10 days.

This material is not expected to be toxic to aquatic life. The LC50/96-hours values for fish are over 100 mg/L.

13. DISPOSAL CONSIDERATIONS

Contact local hazardous materials or chemical waste disposal agency for regulations.

14. TRANSPORT INFORMATION

IATA CLASSIFICATION:

UN ID NUMBER: UN 1987
PROPER SHIPPING NAME: Alcohols, n.o.s. (ethanol, isopropanol)
CLASS OR DIVISION: 3
SUB RISK:
HAZARD LABEL(S): Flammable liquid
PACKAGING GROUP: PG II
LIMITED QUANTITY PKG INSTRUCTION: "I 566
MAXIMUM LIMITED QUANTITY: 1 L
SPECIAL PROVISIONS: A3
ERG CODE: 3L

15. REGULATORY INFORMATION

PRODUCT RISK STATEMENTS: R11, R36, R61, R67
PRODUCT SAFETY STATEMENTS: S7, S16, S24, S25, S26

16. OTHER INFORMATION