

IMPORTANT
MATERIAL SAFETY DATA SHEET

READ CAREFULLY BEFORE USING CHEMICAL
 OSHA requires that this form be kept on file.

Product No. KM 9 M
Product Name ETHYL ALCOHOL,
 DENATURED 95%

| | |
|---------------|-----------------|
| HAZARD RATING | |
| 4-EXTREME | Health Hazard 3 |
| 3-SEVERE | Flammability 3 |
| 2-MODERATE | Reactivity 0 |
| 1-SLIGHT | |
| 0-MINIMAL | |

Chemical Synonyms Proprietary Solvent
Formula C₂H₅OH
C.A.S. No. 64-17-5

Principal Hazardous Component(s)

| | % | P.E.L. | TLV Units |
|---|-------|--------|------------------|
| Ethyl Alcohol (190pf) C.A.S. #64-17-5 | 92.47 | N/A | 1000 ppm (TWA) |
| Methyl Alcohol C.A.S. #67-56-1 | 3.70 | N/A | 200 ppm (TWA) |
| Methyl Isobutyl Ketone C.A.S. #108-10-1 | 1.89 | N/A | 50 ppm (TWA) |
| Ethyl Acetate/Other C.A.S. #141-78-6 | 1.94 | N/A | 300 ppm (TWA) |
| Rubber Solvent/Gasoline Mixture | .97 | N/A | None Established |

* chemical subject to the reporting requirements of SARA Title III.

| | | | |
|-------------------------------|-----------------------------------|--|------|
| Melting Point (°F) | <-114°C | Specific Gravity (H₂O=1) | 0.80 |
| Boiling Point (°F) | 78°C | Percent Volatile by Volume (%) | 100% |
| Vapor Pressure (mm Hg) | 47 @ 25°C | Evaporation Rate (Butyl Acetate =1) | 3.3 |
| Vapor Density (Air=1) | 1.6 | | |
| Solubility in Water | 100% | | |
| Appearance & Odor | Clear colorless liquid, mild odor | | |

| | | | | |
|----------------------------------|--|--|--------------|--------------|
| Flash Point (Method Used) | 63°F | Flammable Limits in Air % by Volume | Lower | Upper |
| | | | 3.3 | 19.0 |
| Extinguisher Media | Water spray, dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool. | | | |

Special Firefighting Procedures

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards

Flammable! Autoignition temperature 422°C. Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back.

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D.O.T. Denatured alcohol, 3, NA1987, PGII

See Section II

Effects of Overexposure

Toxic due to denaturants. Acute: Irritation to eyes, skin, lungs and GI tract. Narcosis, nausea, vision impairment. Chronic: Dermatitis. Blindness due to presence of methanol. Kidney and liver damage.

SBL4329 Nasco Primary Science Kit GR K-4
 SBL4330 Nasco Intermediate Sc Kit GR 4-9

Emergency and First Aid Procedures

Skin: Remove any contaminated clothing. Wash skin with soap and water from at least 15 minutes. Get medical attention if irritation develops or persists. **Eyes:** Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately. **Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician. **Ingestion:** If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician immediately.

| | |
|---|--|
| Stability | Conditions to Avoid |
| Stable <input checked="" type="checkbox"/> Unstable <input type="checkbox"/> | Avoid heat and ignition sources. |
| Incompatibility (Materials to Avoid) | Strong oxidants, silver salts, halogen halides, alkali metals, n hydrides. |
| Hazardous Decomposition Products | Carbon Oxides. |
| Hazardous Polymerization | Conditions to Avoid |
| May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/> | None |

Steps to be Taken in Case Material is Released or Spilled

Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection vapors. Small spills may be absorbed on paper towels and evaporated in a fume hood. Allow enough time for fumes to clear hood, then ignite paper in a suitable location away from combustible materials. Large spills contain and recover liquid when possible or absorb with vermiculite, dry sand, earth or similar material. Scoop up with non-sparking tool and place in a closed container.

Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities. Can be liquid incinerated in RCRA-approved combustible chamber or absorb with vermiculite, dry sand, earth, or similar material. Scoop with non-sparking tools, place in closed container, and dispose in an approved facility. Do not flush to the sewer.

SECTION VII: SPECIAL PROTECTION REQUIREMENTS

| | | | | |
|--|--------------------------------------|-----------------------|---------|-------|
| Respiration Protection (Specify Type) | Organic cartridge or self-contained. | | | |
| Ventilation | Local Exhaust | X | Special | |
| | Mechanical (General) | X | Other | |
| Protective Gloves | Vinyl or Rubber | Eye Protection | Goggles | |
| Other Protective Equipment | Lab coat | | | |

SECTION IX: SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use.

Store in a cool well ventilated location.

Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals.

Conditions Aggravated/Target Organs: Persons with skin, eye, respiratory or kidney/liver disorders may be more susceptible. Liver/Ki

Approved by Steven C. Quandt Effective Date 11/14/94 For laboratory use only. Not for household use. Keep out of reach

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Contract