

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** ALK 1 Indicator**Other means of identification****Product Code(s)** P-7028**UN-No** 1170**Recommended use of the chemical and restrictions on use****Recommended Use** Use as a laboratory reagent. Industrial (not for food or food contact use). Laboratory chemicals.**Details of the supplier of the safety data sheet****Manufacturer Address**LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748**Emergency telephone numbers**

(CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

| | |
|--|-------------|
| Serious eye damage/eye irritation | Category 2A |
| Germ cell mutagenicity | Category 1B |
| Carcinogenicity | Category 1A |
| Reproductive toxicity | Category 1A |
| Specific target organ toxicity (single exposure) | Category 2 |
| Specific target organ toxicity (repeated exposure) | Category 1 |
| Physical hazards Flammable Liquids. | Category 2 |

EMERGENCY OVERVIEW**DANGER****Hazard statements**

Causes serious eye irritation. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. May cause damage to organs. Causes damage to organs through prolonged or repeated exposure. .
Highly flammable liquid and vapor.

**Appearance** Dark Blue green liquid**Physical state** liquid**Odor** Alcohol**Precautionary Statements - Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection. Do not breathe dust /fume /gas /mist /vapors /spray. Do not eat, drink or smoke when using this product. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep out of the reach of children.

Response: IF exposed or concerned: Get medical advice/attention. 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. IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Drink 1 or 2 glasses of water. Call a physician immediately. In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage:

Store locked up. Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/container to an approved waste disposal plant.

Other Hazards

May be harmful if swallowed. May be harmful in contact with skin. Toxic to aquatic life with long lasting effects.

Unknown Acute Toxicity

60% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS*

| Chemical name | CAS No | Weight-% |
|----------------|---------|----------|
| Methyl alcohol | 67-56-1 | 3 |
| Ethyl alcohol | 64-17-5 | 57 |

4. FIRST AID MEASURES

First Aid Measures

| | |
|--|--|
| General advice | Do not get in eyes, on skin, or on clothing. Show this safety data sheet to the doctor in attendance. |
| Eye contact | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice. |
| Skin contact | Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and wash before reuse. If skin irritation persists, call a physician. |
| Inhalation | IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician. |
| Ingestion | Drink plenty of water. Do not induce vomiting without medical advice. Call a physician immediately. |
| <u>Self-protection of the first aider</u> | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protection recommended in Section 8. |

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|----------------------------------|---|
| Personal precautions | Ensure adequate ventilation. Remove all sources of ignition. Use personal protection recommended in Section 8. |
| Environmental precautions | See Section 12 for additional Ecological Information. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. |

Methods and material for containment and cleaning up

| | |
|--------------------------------|---|
| Methods for containment | Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Dispose of contents/containers in accordance with local regulations. |
| Methods for cleaning up | After cleaning, flush away traces with water. |

7. HANDLING AND STORAGE

Precautions for safe handling

| | |
|-----------------|--|
| Handling | Handle in accordance with good industrial hygiene and safety practice. Do not taste or swallow. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing. |
|-----------------|--|

Conditions for safe storage, including any incompatibilities

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Products NITRIC ACID. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---------------------------|-------------------------------------|--|--|
| Methyl alcohol 67-56-1 | STEL: 250 ppm TWA: 200 ppm S* | TWA: 200 ppm TWA: 260 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m ³ (vacated) S* | IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³ |
| Ethyl alcohol 64-17-5 | STEL: 1000 ppm | TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³ | IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³ |

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems. Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).

Skin and body protection Gloves & Lab Coat. Impervious clothing. Protective gloves. Nitrile rubber.

Respiratory protection Use only with adequate ventilation.

Hygiene Measures Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | | | |
|-----------------------|------------------------|-------------|---------|
| Physical state | liquid | Odor | Alcohol |
| Appearance | Dark Blue green liquid | | |
| Color | dark blue green | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--------------------------------|--------------------------------|---|
| pH | | |
| Melting point / freezing point | No information available | |
| Boiling point / boiling range | 78.5 °C / 173.3 °F | for SDA (3A) Ethyl Alcohol |
| Flash point | Not Applicable 16 °C / 60.8 °F | Closed cup for SDA (3A) Ethyl Alcohol (based on .?) |
| Evaporation rate | | |
| Flammability (solid, gas) | No information available | |
| Flammability Limit in Air | | |
| Upper flammability limit: | No information available | |
| Lower flammability limit: | No information available | |
| Vapor pressure | 48 | mmHg @ 20°C for SDA (3A) Ethyl Alcohol |
| Vapor density | 1.6 | @ 20°C (Air=1) for SDA (3A) Ethyl Alcohol |
| Specific gravity | No information available | |
| Water solubility | No information available | |
| Solubility in other solvents | No information available | |
| Partition coefficient | No information available | |

| | | |
|----------------------------------|--------------------------|----------------------------|
| Autoignition temperature | 363 °C / 685 °F | for SDA (3A) Ethyl Alcohol |
| Decomposition temperature | No information available | |
| Kinematic viscosity | No information available | |
| Dynamic viscosity | No information available | |
| Explosive properties | No information available | |
| Oxidizing properties | No information available | |

Other Information

| | |
|-------------------------|--------------------------|
| Softening point | No information available |
| Molecular weight | No information available |
| VOC Content (%) | No information available |
| Density | No information available |
| Bulk density | No information available |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| Stability | Stable under recommended storage conditions. |
| Hazardous polymerization | Hazardous polymerization does not occur. |
| Conditions to avoid | Heat, flames and sparks. |
| Incompatible materials | NITRIC ACID. Strong oxidizing agents. |
| Hazardous decomposition products | Carbon oxides (COx). |

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Component identification**

| Chemical name | ATEmix (oral) | ATEmix (dermal) | Inhalation LC50 |
|---------------------------|----------------------|--------------------------|---|
| Methyl alcohol 67-56-1 | = 6200 mg/kg (Rat) | = 15800 mg/kg (Rabbit) | = 64000 ppm (Rat) 4 h = 22500 ppm (Rat) 8 h |
| Ethyl alcohol 64-17-5 | = 7060 mg/kg (Rat) | Not Established | = 124.7 mg/L (Rat) 4 h |

Information on toxicological effects

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | ACGIH | IARC | NTP | OSHA |
|---------------------------|-----------------|-----------------|-----------------|-----------------|
| Methyl alcohol 67-56-1 | Not Established | Not Established | Not Established | Not Established |
| Ethyl alcohol 64-17-5 | A3 | Group 1 | Known | X |

NTP (National Toxicology Program)
Known - Known Carcinogen

| | |
|--------------------------------------|----------------|
| ATEmix (oral) | 2,626.00 mg/kg |
| ATEmix (dermal) | 4,300.00 mg/kg |
| ATEmix (inhalation-dust/mist) | 7.18 mg/l |

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxic to aquatic life with long lasting effects

Unknown Aquatic Toxicity 0.11 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

| Chemical name | Toxicity to Algae | Toxicity to Fish | Daphnia Magna (Water Flea) |
|---------------------------|-------------------|--|----------------------------|
| Methyl alcohol 67-56-1 | Not Established | 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 | Not Established |

| | | | |
|--------------------------|-----------------|---|---|
| | | static 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 28200: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static | |
| Ethyl alcohol 64-17-5 | Not Established | 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static | 9268 - 14221: 48 h Daphnia magna mg/L LC50 10800: 24 h Daphnia magna mg/L EC50 2: 48 h Daphnia magna mg/L EC50 Static |

Persistence and degradability

Ethanol: 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 may evaporate to a moderate extent. 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.

Bioaccumulation/Accumulation

No information available.

| Chemical name | Log Pow |
|---------------------------|---------|
| Methyl alcohol 67-56-1 | -0.77 |
| Ethyl alcohol 64-17-5 | -0.32 |

13. DISPOSAL CONSIDERATIONS

Disposal Methods Dispose of waste product or used containers according to local regulations.

Contaminated packaging Do not reuse empty containers.

| Chemical name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|---------------------------|-----------------|-----------------------------------|------------------------|------------------------|
| Methyl alcohol 67-56-1 | Not Established | Included in waste stream: F039 | Not Established | U154 |
| Ethyl alcohol 64-17-5 | Not Established | - | Not Established | Not Established |

| Chemical name | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|---------------------------|--------------------------------------|------------------------|------------------------|------------------------|
| Methyl alcohol 67-56-1 | Not Established | Not Established | Not Established | Not Established |
| Ethyl alcohol 64-17-5 | Not Established | Not Established | Not Established | Not Established |

| Chemical name | California Hazardous Waste Status |
|---------------------------|-----------------------------------|
| Methyl alcohol 67-56-1 | Toxic Ignitable |
| Ethyl alcohol 64-17-5 | Toxic Ignitable |

14. TRANSPORT INFORMATION

DOT

Proper shipping name ETHANOL SOLUTION (Ethyl Alcohol Solution)
UN-No 1170
Hazard Class 3
Packing group II

| | |
|-----------------------------|------------------|
| <u>TDG</u> | Not regulated |
| <u>MEX</u> | Not regulated |
| <u>ICAO</u> | Not regulated |
| <u>IATA</u> | |
| UN-No | 1170 |
| Proper shipping name | ETHANOL SOLUTION |
| Hazard Class | 3 |
| Packing group | II |
| <u>IMDG/IMO</u> | |
| UN-No | 1170 |
| Proper shipping name | ETHANOL SOLUTION |
| Hazard Class | 3 |
| Packing group | II |
| <u>RID</u> | Not regulated |
| <u>ADR</u> | Not regulated |
| <u>ADN</u> | Not regulated |

15. REGULATORY INFORMATION

International Inventories

| | |
|----------------------|-----------------|
| TSCA | Does not comply |
| DSL/NDL | Complies |
| EINECS/ELINCS | Complies |
| ENCS | Does not comply |
| IECSC | Complies |
| KECL | Complies |
| PICCS | Complies |
| AICS | Complies |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - 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
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical name | SARA 313 - Threshold Values % |
|---------------------------|-------------------------------|
| Methyl alcohol 67-56-1 | 1.0 |
| Ethyl alcohol 64-17-5 | Not Established |

SARA 311/312 Hazard Categories

| | |
|--|-----|
| Acute health hazard | Yes |
| Chronic Health Hazard | Yes |
| Fire hazard | Yes |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Methyl alcohol 67-56-1 | Not Established | Not Established | Not Established | Not Established |
| Ethyl alcohol 64-17-5 | Not Established | Not Established | Not Established | Not Established |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical name | Hazardous Substances RQs | CERCLA/SARA RQ | RQ |
|---------------------------|--------------------------|-----------------|--|
| Methyl alcohol 67-56-1 | 5000 lb | Not Established | RQ 5000 lb final RQ RQ 2270 kg final RQ |
| Ethyl alcohol 64-17-5 | *- | Not Established | - |

US State Regulations

California Proposition 65



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

| Chemical name | California Proposition 65 |
|---------------------------|---------------------------|
| Methyl alcohol 67-56-1 | Developmental |
| Ethyl alcohol 64-17-5 | Carcinogen |

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---------------------------|------------|---------------|--------------|
| Methyl alcohol 67-56-1 | X | X | X |
| Ethyl alcohol 64-17-5 | X | X | X |

CPSC (Consumer Product Safety Commission) - Specially Regulated Substances

| Chemical name | CPSC (Consumer Product Safety Commission) - Specially Regulated Substances |
|---------------------------|--|
| Methyl alcohol 67-56-1 | Special labeling, 16 CFR 1500.14 |

16. OTHER INFORMATION

NFPA

Health hazard 1

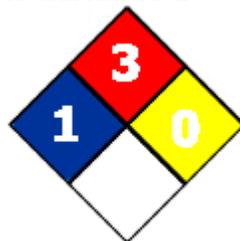
Flammability 3

Instability 0

Physical and Chemical Hazards N/A

Health hazard 2

Flammability 3



| | |
|--------------|---|
| HEALTH | 2 |
| FLAMMABILITY | 3 |
| REACTIVITY | 0 |

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Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet