Engineered Chemistry™

Material Safety Data Sheet

UNIBAC

1. Product and Company Identification

Material name	**UNIBAC**
Patent Number	Not available
Version No.	5
CAS #	Mixture
Product use	NON-EMULSIFIER
Manufacturer information	Clearwater International L.L.C. 100 Leetsdale Industrial Drive Leetsdale, PA 15056 US CHEMTREC 1-800-424-9300/703-527-3887
Emergency	CHEMTREC 1-800-424-9300/703-527-3887
Supplier information	Universal Well Services, Inc. 18360 Technology Drive Meadville, PA 16335 US

2. Hazards Identification

Emergency overview	Will be easily ignited by heat, spark or flames.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Eyes	Eye contact may result in corneal injury. Contact may irritate or burn eyes. Do not get this material in contact with eyes.
Skin	Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash). Do not get this material in contact with skin.
Inhalation	Prolonged inhalation may be harmful. Do not breathe dust/fume/gas/mist/vapors/spray.
Ingestion	May cause delayed lung damage. Do not ingest. Components of the product may be absorbed into the body by ingestion.
Target organs	Central nervous system. Eyes. Gastrointestinal tract. Lungs. Respiratory system. Skin.
Chronic effects	Shortness of breath. Conjunctiva. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. May cause delayed lung damage. Prolonged skin contact may defat the skin and produce dermatitis.
Signs and symptoms	Discomfort in the chest. Shortness of breath. Corneal damage. Narcosis. Decrease in motor functions. Behavioral changes. Cough. Conjunctivitis. Defatting of the skin. Rash. Irritation.
Potential environmental effects	May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Isopropyl alcohol	67-63-0	30 - 60
Methanol	67-56-1	10 - 30

4. First Aid Measures

First aid procedures

Eye contact — Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Skin contact — Wash off with warm water and soap. Get medical attention if irritation develops or persists.

Inhalation — If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.

Ingestion — If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice.

Notes to physician — Symptoms may be delayed.

General advice — Call a physician if symptoms develop or persist. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties — Flammable by OSHA criteria. Containers may explode when heated. Runoff to sewer may cause fire or explosion hazard.

Extinguishing media

Suitable extinguishing media — Water. Foam. Alcohol foam. Dry chemical. Carbon dioxide (CO2).

Unsuitable extinguishing media — Do not use a solid water stream as it may scatter and spread fire.

Protection of firefighters

Protective equipment and precautions for firefighters — In the event of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Move containers from fire area if you can do it without risk. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.

6. Accidental Release Measures

Personal precautions — Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away. Stay upwind. Keep out of low areas.

Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up

Should not be released into the environment.

Large Spills: Dike far ahead of liquid spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. After removal flush contaminated area thoroughly with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

Never return spills in original containers for re-use.

7. Handling and Storage

Handling

Do not handle or store near an open flame, heat or other sources of ignition. Use only with adequate ventilation. Avoid prolonged exposure.

Storage

Refrigeration recommended. Keep tightly closed in a dry, cool and well-ventilated place. Store in accordance with local/regional/national/international regulation.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

Components	CAS #	TWA	STEL	Ceiling
Isopropyl alcohol	67-63-0	200 ppm	400 ppm	Not established
Methanol	67-56-1	200 ppm	250 ppm	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
Isopropyl alcohol	67-63-0	400 ppm	Not established	Not established
Methanol	67-56-1	200 ppm	Not established	Not established

Engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Personal protective equipment

Eye / face protection

Do not get this material in contact with eyes. Wear chemical goggles.

Skin protection

Do not get this material in contact with skin. Wear appropriate chemical resistant gloves.Impervious gloves.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General hygeine considerations

Do not get this material in contact with eyes. Do not get this material in contact with skin. When using do not eat or drink. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Liquid.
Color	clear, yellow
Odor	alcoholic
Odor threshold	Not available
Physical state	Liquid.
Form	Liquid.
pH	6 - 8
Melting point	-63.4 °F (-52.57 °C) estimated
Freezing point	Not available
Boiling point	188.6 °F (87.43 °C) estimated
Flash point	80 °F (26.7 °C)
Evaporation rate	Not available
Flammability	Not available.
Flammability limits in air, upper, % by volume	Not available
Flammability limits in air, lower, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	0.88 - 0.91
Relative density	0.8949 g/cm3 estimated
Solubility (water)	Not available
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	779 °F (415 °C) estimated
Decomposition temperature	Not available
VOC	43.48 % estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of ignition. Stable at normal conditions.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Acute effects	Acute LD50: 10453 mg/kg estimated, Rat, Oral Acute LD50: 30907 mg/kg estimated, Rat, Dermal Acute LC50: 172 mg/l/4h estimated, Rat, Inhalation

Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s

Isopropyl alcohol	67-63-0	Inhalation LC50 Rat: 72.6 mg/L/4H; Oral LD50 Rat:4396 mg/kg; Dermal LD50 Rat:12800 mg/kg; Dermal LD50 Rabbit:12870 mg/kg
Methanol	67-56-1	Inhalation LC50 Rat: 83.2 mg/L/4H; Inhalation LC50 Rat:64000 ppm/4H; Oral LD50 Rat:5628 mg/kg; Dermal LD50 Rabbit:15800 mg/kg

Sensitization Not expected to be hazardous by OSHA criteria.

Local effects Contact may irritate or burn eyes. Components of the product may be absorbed into the body through the skin.

Chronic effects Hazardous by OSHA criteria. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged or repeated exposure may cause lung injury. Prolonged exposure may cause chronic effects.

Carcinogenicity Not expected to be hazardous by OSHA criteria.

ACGIH - Threshold Limits Values - Carcinogens

Isopropyl alcohol	67-63-0	A4 - Not Classifiable as a Human Carcinogen

Neurological effects Hazardous by OSHA criteria.

Epidemiology Hazardous by OSHA criteria.

Further information Symptoms may be delayed.

12. Ecological Information

Ecotoxicity LC50 26529 mg/L estimated, Fish, 96.00 Hours,
EC50 40784 mg/L estimated, Daphnia, 48.00 Hours,
IC50 3067 mg/L estimated, Algae, 72.00 Hours,
Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Algae Data

Isopropyl alcohol	67-63-0	96 Hr EC50 Scenedesmus subspicatus: >1000 mg/L; 72 Hr EC50 Scenedesmus subspicatus: >1000 mg/L

Ecotoxicity - Freshwater Fish Species Data

Isopropyl alcohol	67-63-0	96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 94900 mg/L [flow-through] (29 days old); 96 Hr LC50 Pimephales promelas: 61200 mg/L [flow-through] (31 days old)
Methanol	67-56-1	96 Hr LC50 Pimephales promelas: 28100 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 13200 mg/L

Ecotoxicity - Microtox Data

Isopropyl alcohol	67-63-0	5 min EC50 Photobacterium phosphoreum: 35390 mg/L
Methanol	67-56-1	5 min EC50 Photobacterium phosphoreum: 43000 mg/L; 15 min EC50 Photobacteriur phosphoreum: 40000 mg/L; 25 min EC50 Photobacterium phosphoreum: 39000 mg/l

Ecotoxicity - Water Flea Data

Isopropyl alcohol	67-63-0	48 Hr EC50 Daphnia magna: 13299 mg/L

Environmental effects

Ecotoxicity - Freshwater Algae Data

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13. Disposal Considerations

Waste codes D001: Waste Flammable material with a flash point <140 F

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

Methanol	67-56-1	waste number U154 (Ignitable waste)

Disposal instructions Dispose of this material and its container at hazardous or special waste collection point. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Dispose in accordance with all applicable regulations.

14. Transport Information

Department of Transportation (DOT) Requirements

Basic shipping requirements:

Proper shipping name Flammable liquids, n.o.s. (Isopropyl alcohol, Methanol)

Hazard class 3

UN number UN1993

Packing group III

Additional information:

Packaging non bulk 202

Packaging bulk 242

ERG code 128

Department of Transportation (DOT) Requirements

Bulk

Basic shipping requirements:	
Proper shipping name	Flammable liquids, n.o.s. (Methanol, RQ: 5000 lbs) (Isopropyl alcohol, METHANOL)
Hazard class	3
UN number	UN1993
Packing group	III
Additional information:	
Packaging non bulk	202
Packaging bulk	242
ERG code	128

Canadian Transportation of Dangerous Goods (TDG) Requirements

Basic shipping requirements:	
Proper shipping name	FLAMMABLE LIQUID, TOXIC, N.O.S. (Isopropyl alcohol, METHANOL)
Hazard class	3
Subsidiary hazard class	6.1
UN number	UN1992
Packing group	III
Additional information:	
Special provisions	16
ERG code	131

IMDG

Basic shipping requirements:	
Proper shipping name	FLAMMABLE LIQUID, TOXIC, N.O.S. (Isopropyl alcohol, METHANOL)
Hazard class	3
Subsidiary hazard class	6.1
UN number	1992
Packing group	III

IATA

Basic shipping requirements:	
Proper shipping name	Flammable liquid, n.o.s. (Isopropyl alcohol, METHANOL)
Hazard class	3
UN number	1993
Packing group	III

15. Regulatory Information

Labelling

Contains Isopropyl alcohol, Methanol

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

FEMA (Flavor and Extract Manufacturers Association) - FEMA Numbers

Isopropyl alcohol	67-63-0	2929

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Isopropyl alcohol	67-63-0	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
Methanol	67-56-1	1.0 % de minimis concentration

U.S. - FDA - Color Additives Conditionally Approved for Use in Foods

Isopropyl alcohol	67-63-0	21 CFR 73.1

U.S. - FDA - Direct Food Additives

Isopropyl alcohol	67-63-0	21 CFR 172.515, 21 CFR 173.240, 21 CFR 173.340
Methanol	67-56-1	21 CFR 173.250

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

Methanol: 5000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

International regulations

Canada - WHMIS - Ingredient Disclosure List

Isopropyl alcohol	67-63-0	1 %
Methanol	67-56-1	1 %

State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - Massachusetts - Right To Know List

Isopropyl alcohol	67-63-0	Present
Methanol	67-56-1	Present

U.S. - Minnesota - Hazardous Substance List

Isopropyl alcohol	67-63-0	Present
Methanol	67-56-1	Skin

U.S. - New Jersey - Right to Know Hazardous Substance List

Isopropyl alcohol	67-63-0	sn 1076; sn 2381 (strong-acid process manufacture)
Methanol	67-56-1	sn 1222

U.S. - Pennsylvania - RTK (Right to Know) List

Isopropyl alcohol	67-63-0	Environmental hazard
Methanol	67-56-1	Environmental hazard

U.S. - Rhode Island - Hazardous Substance List

Isopropyl alcohol	67-63-0	Toxic; Flammable
Methanol	67-56-1	Toxic; Flammable

U.S. - Texas - Effects Screening Levels - Long Term

Isopropyl alcohol	67-63-0	320 ppb ESL (odor); 785 µg/m3 ESL (odor)
Methanol	67-56-1	200 ppb ESL; 262 µg/m3 ESL

U.S. - Texas - Effects Screening Levels - Short Term

Isopropyl alcohol	67-63-0	3200 ppb ESL (odor); 7850 µg/m3 ESL (odor)
Methanol	67-56-1	2000 ppb ESL; 2620 µg/m3 ESL

16. Other Information

HMIS® ratings

Health: 2
Flammability: 3
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 3
Instability: 0

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Disclaimer

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MSDS sections updated

Product and Company Identification: Product and Company Identification