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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Denatured Alcohol

Other means of identification ITEM# 80-092

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Fuel

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name Romanoff International Supply Corporation
9 Deforest Street
Amityville, NY 11701 US
Tel: 631-842-2400

CHEM TEL, Account# MIS4594445

Emergency telephone number United States, Canada, Puerto Rico & U.S. Virgin Islands: 1-800-255-3924,
Australia: 1-300-954-583, Brasil: 0-800-591-6042, China: 400-120-0751, India: 000-800-100-4086,
Mexico: 800-099-0731 ALL OTHER COUNTRIES: 1-813-248-0585

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)


Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3



Denatured Alcohol

Specific target organ toxicity (single exposure)	Category 1
Flammable liquids	Category 2

GHS Label elements, including precautionary statements

Emergency Overview		
Signal word	Danger	
Hazard Statements		
Toxic if swallowed		
Toxic in contact with skin		
Toxic if inhaled		
Causes damage to organs		
Highly flammable liquid and vapor		
		
Appearance	Clear	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
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
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 cool

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor/physician
Specific treatment (see supplemental first aid instructions on this label)

Skin

Call a POISON CENTER or doctor/physician if you feel unwell
Wash contaminated clothing before reuse
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician

Denatured Alcohol

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

Other information

PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION

Interactions with Other Chemicals

Use of alcoholic beverages may enhance toxic effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Ethyl Alcohol	64-17-5	30 - 60	
Methyl Alcohol	67-56-1	30 - 60	

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Seek immediate medical attention/advice. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin Contact

Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.



Inhalation	Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.
Ingestion	Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Coughing and/ or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical. Carbon dioxide (CO₂). Water spray. Alcohol resistant foam.

Unsuitable Extinguishing Media

CAUTION: All these products have a very low flash point. Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

Vapors can form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard.

Uniform Fire Code	Flammable Liquid: I-B Highly Toxic: Liquid
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Hazardous Combustion Products

Carbon oxides.

Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge Yes.

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

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Full encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Stop leak if you can do it without risk.

Other Information

Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Environmental Precautions

Environmental Precautions

Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for Containment

A vapor suppressing foam may be used to reduce vapors. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up

Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Use clean non-sparking tools to collect absorbed material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Handle in accordance with good industrial hygiene and safety practice. Use personal protection equipment. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Use only with adequate ventilation and in closed systems. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions.

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. Protect from moisture. Store away from other materials. Store locked up. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

Incompatible Products

None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION



Denatured Alcohol

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl Alcohol	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: 325 mg/m ³ STEL: 250 ppm
Ethyl Alcohol	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm 10% LEL TWA: 1000 ppm TWA: 1900 mg/m ³

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

Appropriate engineering controls

Engineering Measures

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Tight sealing safety goggles.

Skin and Body Protection

Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves. Antistatic boots.

Respiratory Protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Take off contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State
Appearance
Color

Liquid
Clear
No information available

Odor
Odor Threshold

Alcohol
No information available

Property

Values

Remarks/ Method

pH
Melting / freezing point

N/A
No data available

None known
None known



Denatured Alcohol

Boiling point / boiling range	64 °C / 147 °F	
Flash Point	10 C / 50 F	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit	No data available	
Lower flammability limit	3.3% @ 77°F	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	No data available	None known
Water Solubility	Appreciable	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	685°F	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	None known
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	100%
Particle Size	No data available
Particle Size Distribution	

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Excessive heat. Heat, flames and sparks.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure



Denatured Alcohol

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Toxic by inhalation. (based on components).
Eye Contact	Specific test data for the substance or mixture is not available.
Skin Contact	Specific test data for the substance or mixture is not available. Toxic in contact with skin. May be absorbed through the skin in harmful amounts. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components). May be fatal or cause blindness if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methyl Alcohol	= 5628 mg/kg (Rat)	-	= 83.2 mg/L (Rat) 4 h
Ethyl Alcohol	-	-	= 124.7 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms	Coughing and/ or wheezing. Difficulty in breathing.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Chemical Name	ACGIH	IARC	NTP	OSHA
Methyl Alcohol	A3	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive Toxicity	No information available.
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STOT - single exposure	Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200), this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). If this product is a mixture, the classification is not based on toxicology studies for this product, but is based solely on toxicology studies for ingredients found within this product. Detailed substance and/or ingredient information may be provided in other sections of this SDS. Target organs effects listed in this document may result from a single overexposure to this product. Causes damage to organs if swallowed. Causes damage to organs in contact with skin. Causes damage to organs if inhaled.
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STOT - repeated exposure

No information available.

Chronic Toxicity

Effects from this product caused by acute exposure may cause permanent damage to target organs and/or may cause chronic conditions. Inhalation, ingestion, or skin absorption of methanol can cause blindness.

Target Organ Effects

Respiratory system. Systemic Toxicity. Eyes. Skin. Gastrointestinal tract (GI). Blood. Central Nervous System (CNS). Liver. Reproductive System.

Aspiration Hazard

No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

191.00 mg/kg

ATEmix (dermal)

574.00 mg/kg (ATE)

ATEmix (inhalation-dust/mist)

0.96 mg/l

ATEmix (inhalation-vapor)

6.00 ATEmix

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Chemical Name	Log Pow
Methyl Alcohol	-0.77
Ethyl Alcohol	-0.32

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Dispose of contents/containers in accordance with local regulations.

US EPA Waste Number D001

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methyl Alcohol		Included in waste stream: F039		U154

California Hazardous Waste Codes 212

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Methyl Alcohol	Toxic Ignitable
Ethyl Alcohol	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

UN# UN1987
Proper Shipping Name ALCOHOLS, NOS
Hazard Class III
Packing Group 2
Description UN1987, ALCOHOLS, NOS, 3, PGII

TDG

UN-No. UN1986
Proper Shipping Name ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Hazard Class 3
Subsidiary class (6.1)
Packing Group II
Description UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (METHANOL, ETHANOL), 3 (6.1), II

MEX

UN-No. UN1986
Proper Shipping Name ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Hazard Class 3
Subsidiary class 6.1
Packing Group II
Description UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (METHANOL, ETHANOL), 3 (6.1), II

ICAO

UN-No. UN1986
Proper Shipping Name ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.



Denatured Alcohol

Hazard Class	3
Subsidiary class	6.1
Packing Group	II
Description	UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (METHANOL, ETHANOL), 3 (6.1), II

IATA

UN-No.	UN1986
Proper Shipping Name	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Hazard Class	3
Subsidiary class	6.1
Packing Group	II
Description	UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (METHANOL, ETHANOL), 3 (6.1), II

IMDG/IMO

UN-No.	UN1986
Proper Shipping Name	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Hazard Class	3
Subsidiary class	6.1
Packing Group	II
EmS No.	F-E, S-D
Description	UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (METHANOL, ETHANOL), 3 (6.1), II, FP 10C

RID

UN-No.	UN1986
Proper Shipping Name	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Hazard Class	3
Packing Group	II
Classification code	FT1
Description	UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (METHANOL, ETHANOL), 3 (6.1), II
ADR/RID-Labels	6.1

ADR

UN-No.	UN1986
Proper Shipping Name	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Hazard Class	3
Packing Group	II
Classification code	FT1
Description	UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (METHANOL, ETHANOL), 3 (6.1), II
ADR/RID-Labels	6.1

ADN

UN-No.	UN1986
Proper Shipping Name	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Hazard Class	3
Packing Group	II
Classification code	FT1
Special Provisions	274, 802
Description	UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (METHANOL, ETHANOL), 3 (6.1), II
Hazard Labels	3 + 6.1
Limited Quantity	1 L
Ventilation	VE01, VE02

15. REGULATORY INFORMATION**International Inventories**

Denatured Alcohol

TSCA
DSL

Complies
All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

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	CAS No	Weight-%	SARA 313 - Threshold Values %
Methyl Alcohol		30 - 60	1.0

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)

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	Extremely Hazardous Substances RQs	RQ
Methyl Alcohol	5000 lb		RQ= 2270 kg final RQ RQ= 5000 lb final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Methyl Alcohol	Developmental
Ethyl Alcohol	Carcinogen
MIBK	Developmental
	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Methyl Alcohol	X	X	X	X	X
MIBK		X			
Ethyl Alcohol	X	X	X	X	X

International Regulations



Denatured Alcohol

Mexico

National occupational exposure limits

Component	Carcinogen Status	Exposure Limits
Methyl Alcohol (30 - 60)		Mexico: TWA= 200 ppm Mexico: TWA= 260 mg/m ³ Mexico: STEL= 250 ppm Mexico: STEL= 310 mg/m ³
Ethyl Alcohol (30 - 60)		Mexico: TWA 1000 ppm Mexico: TWA 1900 mg/m ³

Mexico - Occupational Exposure Limits - Carcinogens

Canada

WHMIS Hazard Class

B2 - Flammable liquid

D2B - Toxic materials



16. OTHER INFORMATION

NFPA

Health Hazards 3 Flammability 3 Instability 0

HMIS

Health Hazards 3 Flammability 3 Physical Hazard 0

Physical and
Chemical Hazards -
Personal Protection
X

Revision Date

17-Sep-2014

Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

End of Safety Data Sheet

