

SAFETY DATA SHEET

Preparation Date: 2/11/2014

Revision date 4/1/2019

Revision Number: G3

1. IDENTIFICATION

Product identifier

Product code: P-575
Product Name: PAN INDICATOR, 0.1 PERCENT SOLUTION IN ETHANOL

Other means of identification

Synonyms: No information available
CAS #: Mixture
RTECS # KQ6300000 (For Ethyl alcohol)
 QM4500000 (For PAN reagent)
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

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

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

| | |
|--|-------------|
| Serious eye damage/eye irritation | Category 2 |
| Reproductive toxicity | Category 1A |
| Specific target organ toxicity (single exposure) | Category 3 |
| Specific target organ toxicity (repeated exposure) | Category 1 |
| Flammable liquids | Category 2 |

Label elements

Danger

Hazard statements

Causes serious eye irritation
 May damage fertility or the unborn child
 May cause respiratory irritation. May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure
Highly flammable liquid and vapor



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Causes mild skin irritation

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
Use only outdoors or in a well-ventilated area
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 or concerned: Get medical advice/attention

In case of fire: Use CO₂, dry chemical, or foam to extinguish.

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 skin irritation occurs: Get medical advice/attention

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS No | Weight-% |
|-------------------------|---------------|-----------------|
| Ethyl Alcohol 200 proof | 64-17-5 | 94.9 |
| Water | 7732-18-5 | 5 |
| P.A.N | 85-85-8 | 0.1 |

4. FIRST AID MEASURES

First aid measures

Product code: P-575

Product name: PAN INDICATOR, 0.1
PERCENT SOLUTION IN ETHANOL

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General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms Causes eye irritation
May cause skin irritation
May cause irritation of respiratory tract
Dyspnea (Difficulty breathing and shortness of breath)
Central nervous system effects
Dizziness
Drowsiness
Headache
Ataxia
Staggering gait
Nausea
Vomiting
May cause cardiovascular effects

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Carbon dioxide (CO2). Dry chemical. Alcohol-resistant foam. Water spray.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous combustion products Carbon Monoxide, Carbon Dioxide.

Specific hazards Flammable. May be ignited by heat, sparks or flames. Material can burn with invisible flame. Vapor may travel considerable distance to source of ignition and flash back. Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks). Container explosion may occur under fire conditions or when heated. Fire may produce irritating,

corrosive and/or toxic gases.

Special Protective Actions for Firefighters

Specific Methods: No information available

Special Protective Equipment 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. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Hygroscopic. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Sensitive to light. Store in light-resistant containers. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials.

Incompatible Materials:

Oxidizing agents

Acids
 Alkali Metals
 Halogens
 Caustics
 isocyanates
 Metals
 Bases
 Acid anhydrides
 Acid chlorides
 Hydrazine

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

| Component | CAS No | OSHA | NIOSH | ACGIH | AIHA WEEL |
|-------------------------|-----------|--|--|---------------|-----------|
| Ethyl Alcohol 200 proof | 64-17-5 | 1000 ppm TWA 1900 mg/m ³ TWA | 1000 ppm TWA 1900 mg/m ³ TWA | 1000 ppm STEL | None |
| Water | 7732-18-5 | None | None | None | None |
| P.A.N | 85-85-8 | None | None | None | None |

Canada

| Component | CAS No | Canada - Alberta | Canada - British Columbia | Canada - Ontario | Canada - Quebec |
|-------------------------|-----------|--|---------------------------|------------------|-----------------|
| Ethyl Alcohol 200 proof | 64-17-5 | 1000 ppm TWA 1880 mg/m ³ TWA | 1000 ppm STEL | 1000 ppm STEL | None |
| Water | 7732-18-5 | None | None | None | None |
| P.A.N | 85-85-8 | None | None | None | None |

Australia and Mexico

| Component | CAS No | Australia | Mexico |
|-------------------------|-----------|--|--|
| Ethyl Alcohol 200 proof | 64-17-5 | 1000 ppm TWA 1880 mg/m ³ TWA | 1000 ppm TWA 1900 mg/m ³ TWA |
| Water | 7732-18-5 | None | None |
| P.A.N | 85-85-8 | None | None |

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles Safety glasses with side-shields.
- Skin and body protection:** Chemical resistant apron
Long sleeved clothing
Gloves

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|--|
| Physical state: Liquid | Appearance: No information available. | Color: Clear. Reddish-orange. |
| Odor: Pleasant. Alcoholic. Mild. Ethereal. Like wine or whiskey. | Taste Pungent. Burning. | Formula No information available |
| Molecular/Formula weight (g/mole): No information available | Flammability (solid, gas) no data available | Flash point (°C): 17 (for Ethyl alcohol 190 proof) |
| Flashpoint (°C/°F): 17 °C/63 °F | Flash Point Tested according to: Closed cup | Autoignition Temperature (°C/°F): 363 °C/685.4 °F (For Ethyl alcohol 200 Proof) |
| Lower Explosion Limit (%): 3.3% (For Ethyl alcohol 200 proof) | Upper Explosion Limit (%): 19% (For Ethyl alcohol 200 proof) | Melting point/range(°C/°F): -114.1-117.3 °C/-173.38-179.14 °F (For Ethyl Alcohol 200 proof) |
| Decomposition temperature(°C/°F): No information available | Boiling point/range(°C/°F): 79 °C/174.2 °F | Bulk density: No information available |
| Density (g/cm3): No information available | Specific gravity: 0.8 @ 20 °C | pH No information available |
| Vapor pressure @ 20°C (kPa): 5.93 | Evaporation rate: No information available | Vapor density: 1.59 (For Ethyl alcohol 200 proof) |
| VOC content (g/L): 789 | Odor threshold (ppm): 5-10 (recognition) 84 (tolerance) | Partition coefficient (n-octanol/water): No information available |
| Viscosity: No information available | Miscibility: Miscible with water Miscible with Acetone Miscible with Ether Miscible with Benzene Miscible with glacial Acetic Acid Miscible with many organic solvents | Solubility: Very soluble in water |

10. STABILITY AND REACTIVITY

Reactivity

When Ethanol comes in contact with Sodium, it liberates flammable hydrogen gas
It can react vigorously or explosively with acid hydrides or acid chlorides
It reacts with alkali metals to liberate flammable hydrogen gas
It reacts with acetyl bromide to evolve hydrogen bromide
It reacts with ammonia + silver nitrate to form silver nitride and silver fulminate
Ethyl alcohol can react with freshly cut/etched/scratched aluminum with the evolution of heat and release of hydrogen gas. The Ethyl alcohol has to be on the aluminum surface as it is being cut/scratched/etched
Ethyl Alcohol reacts vigorously with acetyl chloride.
Ethyl alcohol reacts with silver (I) oxide + ammonia or hydrazine to form silver nitride and silver fulminate
Ethanol ignites and then explodes on contact with the following compounds: acetic anhydride + sodium hydrosulfate, disulfuric acid + nitric acid, phosphorus (III) oxide, platinum, potassium tert-butoxide + acids
Ethanol rapidly absorbs moisture from the air. Can react vigorously/explosively with oxidizers. Ethanol can react

vigorously/explosively with the following: ammonium hydroxide & silver oxide, chlorine or chlorine oxides, perchlorates (barium perchlorate, chloryl perchlorate, magnesium perchlorate (forms ethyl perchlorate), nitrosyl perchlorate, potassium perchlorate, silver perchlorate, uranyl perchlorate), acetic anhydride, acetyl bromide (evolves hydrogen bromide), acetyl chloride, aluminum sesquibromide ethylate, bromine pentafluoride, calcium hypochlorite, chromic anhydride, chromium trioxide, chromyl chloride, cyanuric acid + water, dichloromethane + sulfuric acid + nitrate (or) nitrite, manganese perchlorate + 2,2-dimethoxy propane, dioxygen difluoride, disulfuryl difluoride, fluorine nitrate, hydrogen peroxide, iodine heptafluoride, manganese heptoxide, iodine + methanol + mercuric oxide, iodine + Phosphorus (forms ethane iodide), mercuric nitrate, nitric acid, perchloric acid, permanganic acid, peroxydisulfuric acid, platinum black, potassium dioxide, potassium permanganate, potassium superoxide, potassium tert-butoxide, ruthenium(VIII) oxide, silver + nitric acid (forms silver fulminate), silver nitrate (forms ethyl nitrate), silver peroxide, sodium hydrazide, hydrogen peroxide + sulfuric acid, sulfuric acid + permanganates, uranium hexafluoride, sulfuric acid + sodium dichromate, tetrachlorosilane + water, silver & nitric acid, tetraphosphorus hexaoxide

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Oxidizing agents
Acids
Alkali Metals
Halogens
Caustics
isocyanates
Metals
Bases
Acid anhydrides
Acid chlorides
Hydrazine

Hazardous decomposition products: Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acid smoke and irritating fumes.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Skin. Eyes. Inhalation.

Acute Toxicity

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

ATEmix (oral) 7432 mg/kg
ATEmix (inhalation-vapor) 131.26 mg/l

Component Information

| | |
|-------------------------|---------|
| Ethyl Alcohol 200 proof | |
| CAS No | 64-17-5 |

LD50/oral/rat = 7060 mg/kg Oral LD50 Rat
LD50/oral/mouse = 3450 mg/kg Oral LD50 Mouse
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = 124.7 mg/L Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = 39000 mg/m³ 4 h
Other LD50 or LC50information = >60000 ppm Inhalation LC50 Mouse 1 h
5900 mg/m³ Inhalation LC50 Rat 6 h
20000 ppm Inhalation LC50 Rat 10 h
5560 mg/kg Oral LD50 Guinea Pig
6300 mg/kg Oral LD50 Rabbit

| | |
|--------|-----------|
| Water | |
| CAS No | 7732-18-5 |

LD50/oral/rat = > 90 mL/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

| | |
|--------|---------|
| P.A.N | |
| CAS No | 85-85-8 |

LD50/oral/rat = No information available
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

Product Information

LD50/oral/rat =
Value - Acute Tox = No information available

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
Value - Acute Tox = No information available

LD50/dermal/rat
VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Mildly to moderately irritating to the skin.

Eye Contact: Causes serious eye irritation.

Inhalation May cause irritation of respiratory tract. Symptoms may include coughing and shortness of breath. May cause nausea and headache. It may affect behavior/central nervous system (ataxia, general anesthetic, drowsiness). May affect respiration (respiratory depression). Inhalation of high concentrations of vapor may cause anesthetic effects. Inhalation of high concentrations of vapors may cause dizziness or suffocation. May affect the brain.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause gastritis. May cause loss of appetite. May cause flushed skin. May affect the cardiovascular system (change in heart rate). May affect the cardiovascular system (hypotension or hypertension, tachycardia, dysrhythmias). It may affect behavior/central nervous system (excitation, mild euphoria, excessive talking, fatigue, headache, dizziness, drowsiness, staggering gait, ataxia, hallucinations, slurred speech, amnesia, confusion, release of inhibitions, aggressive behavior, convulsions, coma). May affect respiration (dyspnea, respiratory depression). It may affect the brain. May affect liver. May affect the blood. May affect the endocrine system. It may affect the spleen. May affect urinary system (kidneys).

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated skin contact may cause dermatitis, and dryness and cracking of the skin. Prolonged or repeated ingestion may affect behavior/central nervous system. Prolonged or repeated ingestion may affect metabolism (cause anorexia, weight loss). Prolonged or repeated ingestion may affect the liver (fatty liver degeneration, cirrhosis of the liver. Prolonged or repeated ingestion may affect the cardiovascular system.

Sensitization: No information available.

Mutagenic Effects: For Ethyl alcohol:
 May affect genetic material
 Experiments with bacteria and/or yeast have shown mutagenic effects
 Cytogenic analysis - hamster ovary
 Cytogenic Analysis (Hamster embryo)
 Cytogenic analysis - human leukocyte
 Cytogenic Analysis: human lymphocyte
 Sister Chromatid Exchange - Hamster ovary
 Sister Chromatid Exchange (human lymphocyte)

Carcinogenic effects: For Ethyl Alcohol:.. Equivocal tumorigenic agent by Registry of Toxic Effects of Chemical Substances (RTECS) criteria. Confirmed Animal Carcinogen with Unknown Relevance to Humans.

| Component | CAS No | IARC | ACGIH - Carcinogens | NTP | OSHA HCS - Carcinogens | Australia - Notifiable Carcinogenic Substances | Australia - Prohibited Carcinogenic Substances |
|-------------------------|---------|--|--|------------|------------------------|--|--|
| Ethyl Alcohol 200 proof | 64-17-5 | Group 1 - Monograph 100E [2012] in alcoholic beverages | A3 Confirmed Animal Carcinogen with Unknown Relevance to | Not listed | Present | Not listed | Not listed |

| | | | | | | | |
|-------|-----------|---|------------|------------|------------|------------|------------|
| | | Monograph 96 [2010] in alcoholic beverages | Humans | | | | |
| Water | 7732-18-5 | Not listed | Not listed | Not listed | Not listed | Not listed | Not listed |
| P.A.N | 85-85-8 | Not listed | Not listed | Not listed | Not listed | Not listed | Not listed |

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

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

Reproductive toxicity May damage fertility or the unborn child

Reproductive Effects: For Ethyl alcohol:
Causes adverse reproductive effects

Developmental Effects: For Ethyl alcohol:
May cause adverse developmental effects
May cause harm to the unborn child

Teratogenic Effects: For Ethyl alcohol:
Causes birth defects (teratogenic effects)

Specific Target Organ Toxicity

STOT - single exposure respiratory system. central nervous system.
STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.
Target Organs: Skin. Liver. Central nervous system. Nervous system. Heart.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Ethyl Alcohol 200 proof - 64-17-5

Fish 12.0 - 16.0 mL/L LC50 Oncorhynchus mykiss 96 h static 1 100 mg/L LC50
Pimephales promelas 96 h static 1 13400 - 15100 mg/L LC50 Pimephales
promelas 96 h flow-through 1
Crustacea 9268 - 14221 mg/L LC50 Daphnia magna 48 h 2 mg/L EC50 Daphnia magna 48 h
10800 mg/L EC50 Daphnia magna 24 h

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility in soil No information available

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

| Component | CAS No | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|-------------------------|-----------|------------------------|------------------------|------------------------|------------------------|
| Ethyl Alcohol 200 proof | 64-17-5 | None | None | None | None |
| Water | 7732-18-5 | None | None | None | None |
| P.A.N | 85-85-8 | None | None | None | None |

14. TRANSPORT INFORMATION**DOT**

UN-No: UN1170
Proper Shipping Name: Ethanol solution
Hazard Class 3
Subsidiary Class No information available
Packing group: II
Emergency Response Guide Number 127
Marine Pollutant No data available
DOT RQ (lbs): No information available
Special Provisions 24, IB2, T4, TP1
Symbol(s): No information available
Description: UN1170, ETHANOL SOLUTION, 3, II

TDG (Canada)

UN-No: UN1170
Proper Shipping Name: Ethanol solution
Hazard Class 3
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant No Information available
Description: UN1170, ETHANOL SOLUTION, 3, II

ADR

UN Number UN1170
Proper Shipping Name: Ethanol solution
Transport hazard class(es) 3
Packing group II
Subsidiary Risk: No information available
 Special Provisions 144, 601
Description: UN1170, ETHANOL SOLUTION, 3, II

IMDG

UN-No: UN1170
Proper Shipping Name: Ethanol solution
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant No information available
EMS: F-E
Special Provisions 144
Description UN1170, ETHANOL SOLUTION, 3, II

RID

UN Number UN1170
Proper Shipping Name: Ethanol solution
Transport hazard class(es) 3

Subsidiary Risk: 3
Packing group II
Special Provisions 144, 601
Description: UN1170, ETHANOL SOLUTION, 3, II

ICAO (air)

UN-No: UN1170
Proper Shipping Name: Ethanol solution
Hazard Class 3
Subsidiary Risk: No information available
Packing Group: II
Description: UN1170, ETHANOL SOLUTION, 3, II
Special Provisions A58, A180, A3

IATA

UN Number UN1170
Proper Shipping Name: Ethanol solution
Transport hazard class(es) 3
Subsidiary Risk: No information available
Packing group II
Precautionary Statements - Response 3L
Special Provisions No information available
Description: UN1170, ETHANOL SOLUTION, 3, II

15. REGULATORY INFORMATION

International Inventories

| Component | CAS No | U.S. TSCA | KOREA KECL | Philippines (PICCS) | Japan ENCS | China IECSC | Australia (AICS) | EINECS-No. |
|--------------------------------|-----------|-----------------|------------------|---------------------|-------------|-------------|------------------|-------------------|
| <i>Ethyl Alcohol 200 proof</i> | 64-17-5 | Present(ACTIVE) | KE-13217 | Present | (2)-202 | Present | Present | Present 200-578-6 |
| <i>Water</i> | 7732-18-5 | PresentACTIVE | Present KE-35400 | Present | Not present | Present | Present | Present 231-791-2 |
| <i>P.A.N</i> | 85-85-8 | PresentACTIVE | Not present | Not present | Not present | Present | Present | Present 201-637-9 |

U.S. Regulations


Ethyl Alcohol 200 proof

- Massachusetts RTK:** Present
- New Jersey RTK Hazardous Substance List:** 0844
- Pennsylvania RTK:** Present
- Minnesota - Hazardous Substance List:** Present
- Louisiana Reportable Quantity List for Pollutants:** Present (listed as Volatile Organic Compounds)
- California Directors List of Hazardous Substances:** Present
- FDA - Food Additives Generally Recognized as Safe (GRAS):** 21 CFR 184.1293


FDA - 21 CFR - Total Food Additives 169.175, 169.176, 169.177, 169.181, 172.340, 172.560, 172.580, 175.105, 176.180, - **List Sourced from EAFUS** 176.200, 177.1200, 177.1650, 178.1010, 184.1293, 73.30, 73.345, 73.615

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

 **WARNING:** This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.

Chemicals Known to the State of California to Cause Reproductive Toxicity:

 **WARNING:** This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause birth defects or other reproductive harm. For more information go to www.p65warnings.ca.gov.

| Component | CAS No | Carcinogen | Developmental Toxicity | Male Reproductive Toxicity | Female Reproductive Toxicity: |
|-------------------------|-----------|---|---|----------------------------|-------------------------------|
| Ethyl Alcohol 200 proof | 64-17-5 | carcinogen (Ethanol in alcoholic beverages) | developmental toxicity (Ethyl alcohol in alcoholic beverages) | Not Listed | Not Listed |
| Water | 7732-18-5 | Not Listed | Not Listed | Not Listed | Not Listed |
| P.A.N | 85-85-8 | Not Listed | Not Listed | Not Listed | Not Listed |

CERCLA/SARA

| Component | CAS No | CERCLA - Hazardous Substances and their Reportable Quantities | Section 302 Extremely Hazardous Substances and TPQs | Section 302 Extremely Hazardous Substances and RQs | Section 313 - Chemical Category | Section 313 - Reporting de minimis |
|--------------------------------|-----------|---|---|--|---------------------------------|------------------------------------|
| <i>Ethyl Alcohol 200 proof</i> | 64-17-5 | None | None | None | None | None |
| <i>Water</i> | 7732-18-5 | None | None | None | None | None |
| <i>P.A.N</i> | 85-85-8 | None | None | None | None | None |

U.S. TSCA

| Component | CAS No | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|-------------------------|-----------|---|--|
| Ethyl Alcohol 200 proof | 64-17-5 | Not Applicable | Not Applicable |
| Water | 7732-18-5 | Not Applicable | Not Applicable |
| P.A.N | 85-85-8 | Not Applicable | Not Applicable |

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Ethyl Alcohol 200 proof
64-17-5 (94.9)

WHMIS 2015 Hazard Classification
Flammable liquids - Category 2: H225 Highly flammable liquid and vapour.; Serious Eye Damage/Eye Irritation - Category 2B: H320 Causes eye irritation.
Not a dangerous product according to HPR classification criteria

Water
7732-18-5 (5)

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

| Component | CAS No | Canada (DSL) | Canada (NDSL) |
|-------------------------|-----------|--------------|---------------|
| Ethyl Alcohol 200 proof | 64-17-5 | Present | Not Listed |
| Water | 7732-18-5 | Present | Not Listed |
| P.A.N | 85-85-8 | Present | Not Listed |

| Component | CAS No | CEPA Schedule I - Toxic Substances |
|-------------------------|-----------|------------------------------------|
| Ethyl Alcohol 200 proof | 64-17-5 | Not listed |
| Water | 7732-18-5 | Not listed |

| | | |
|-------------------------|-----------|---|
| P.A.N | 85-85-8 | Not listed |
| Component | CAS No | CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting |
| Ethyl Alcohol 200 proof | 64-17-5 | Not listed |
| Water | 7732-18-5 | Not listed |
| P.A.N | 85-85-8 | Not listed |

EU Classification

EU GHS - SV - CLP 1272/2008

| | | |
|-------------------------|-----------|---|
| Component | CAS No | EU GHS - SV - CLP (1272/2008) |
| Ethyl Alcohol 200 proof | 64-17-5 | Flammable liquids - Flam. Liq. 2: H225 Highly flammable liquid and vapour.603-002-00-5 |
| Water | 7732-18-5 | |
| P.A.N | 85-85-8 | |

EU - CLP (1272/2008)

R-phrase(s)

R11 - Highly flammable

S -phrase(s)

S 7 - Keep container tightly closed.

S16 - Keep away from sources of ignition - No smoking

| Component | CAS No | Classification | Concentration Limits: | Safety Phrases |
|-------------------------|-----------|----------------|-----------------------|----------------|
| Ethyl Alcohol 200 proof | 64-17-5 | F; R11 | No information | S(2) S7 S16 |
| Water | 7732-18-5 | | No information | |
| P.A.N | 85-85-8 | | No information | |

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

F - Highly flammable

F



16. OTHER INFORMATION

Preparation Date: 2/11/2014
Revision date: 4/1/2019
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or

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End of Safety Data Sheet