1. Identification

Product identifier
INSTRUMENT AF 50/50 ETHANOL/PG

Other means of identification

Product code
337XX

Recommended use
Winterizing anti-freeze.

Recommended restrictions
None known.

Manufacturer/Importer/Supplier/Distributor information

Company name
Star brite Distributing, Inc.

Address
4041 SW 47th Avenue
Fort Lauderdale, FL 33314 US

Telephone
Not available.

E-mail
Not available.

Contact person
Vincent Waclawek

Emergency phone number
24-Hour Emergency: CHEMTREC: (703) 527-3887 or (800) 424-9300

2. Hazard(s) identification

Physical hazards
Flammable liquids Category 3

Health hazards
Serious eye damage/eye irritation Category 2A
Specific target organ toxicity, single exposure Category 1 (central nervous system, eyes)

OSHA defined hazards
None known.

Label elements

Signal word
Danger

Hazard statement
Flammable liquid and vapor. Causes serious eye irritation. Causes damage to organs (Central nervous system, eyes).

Precautionary statement

Prevention
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist or vapor. Wash thoroughly after handling.

Response
In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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 exposed or concerned: Call a poison center/doctor.

Storage
Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)
None known.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>30 - 60</td>
</tr>
</tbody>
</table>
4. First-aid measures

**Inhalation**
If symptomatic, move to fresh air. Get medical attention if symptoms persist.

**Skin contact**
Wash area with soap and water. Get medical attention if irritation develops or persists.

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms persist.

**Ingestion**
Seek medical advice.

**Most important symptoms/effects, acute and delayed**
Irritation of eyes. Causes damage to organs (central nervous system, eyes). Treat symptomatically. Symptoms may be delayed.

**Indication of immediate medical attention and special treatment needed**
Methanol: Human exposure to methanol may result in illness, systemic poisoning, blindness, optic nerve damage and perhaps death, after being ingested, absorbed through the skin or inhaled. Death due to cardiac or respiratory failure has been reported in some cases from consumption of as little as 30 mls.

5. Fire-fighting measures

**Suitable extinguishing media**
Extinguish with foam, carbon dioxide, dry powder or water fog.

**Unsuitable extinguishing media**
None known.

**Specific hazards arising from the chemical**
Flammable liquid and vapor. By heating and fire, harmful vapors/gases may be formed.

**Special protective equipment and precautions for firefighters**
Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.

**Fire-fighting equipment/instructions**
Move containers from fire area if you can do so without risk.

**Specific methods**
Water spray should be used to cool containers.

6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Eliminate all ignition sources (no smoking, flames, sparks or flames in immediate area). Wear protective clothing as described in Section 8 of this safety data sheet. Ensure adequate ventilation. Ventilate closed spaces before entering them. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Methods and materials for containment and cleaning up**
Stop the flow of material, if this is without risk. Prevent entry into waterways, sewers, basements or confined areas. Dike the spilled material, where this is possible. Do not allow material to contaminate ground water system.

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

Large Spills: Dike far ahead of spill for later disposal. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste for proper disposal.

Never return spills to original containers for re-use. Following product recovery, flush area with water. This material and its container must be disposed of as hazardous waste. Clean up in accordance with all applicable regulations.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not contaminate water.

7. Handling and storage

**Precautions for safe handling**
Eliminate all sources of ignition. The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. Ground container and transfer equipment to eliminate static electric sparks. All handling to take place in well-ventilated area. Local exhaust is recommended. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**
Keep away from heat, sparks and open flame. Keep locked up. Store in a well-ventilated place. Store in a closed container away from incompatible materials. Do not store near heat sources or expose to high temperatures.

8. Exposure controls/personal protection

**Occupational exposure limits**
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>PEL</td>
<td>1900 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

INSTRUMENT AF 50/50 ETHANOL/PG

919471-VW  Version #: 01  Revision date: -  Issue date: 06-June-2019  
SDS US 2 / 7
US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>STEL</td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol (CAS 64-17-5)</td>
<td>TWA</td>
<td>1900 mg/m³</td>
</tr>
</tbody>
</table>

US. Workplace Environmental Exposure Level (WEEL) Guides

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol (CAS 57-55-6)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Aerosol.</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).

Exposure guidelines
No exposure limits noted for ingredient(s).

Appropriate engineering controls
Provide adequate ventilation and minimize the risk of inhalation of vapors and mists. Use explosion-proof equipment. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors. Provide easy access to water supply or an emergency shower.

Individual protection measures, such as personal protective equipment
- **Eye/face protection**: Wear approved chemical safety glasses or goggles where eye exposure is reasonably probable.
- **Skin protection**
  - **Hand protection**: Wear appropriate chemical resistant gloves.
  - **Other**: Wear suitable protective clothing.
- **Respiratory protection**: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- **Thermal hazards**: Not available.

General hygiene considerations
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

- **Appearance**: Red liquid.
- **Physical state**: Liquid.
- **Form**: Liquid.
- **Color**: Red.
- **Odor**: Alcohol.
- **Odor threshold**: Not available.
- **pH**: 7.5
- **Melting point/freezing point**: Not available.
- **Initial boiling point and boiling range**: Not available.
- **Flash point**: 98°F (36.6°C) Tag Closed Cup
- **Evaporation rate**: 1 (Butyl acetate = 1)
- **Flammability (solid, gas)**: Not available.
- **Upper/lower flammability or explosive limits**
  - **Flammability limit - lower (%)**: Not available.
  - **Flammability limit - upper (%)**: Not available.
  - **Explosive limit - lower (%)**: Not available.
  - **Explosive limit - upper (%)**: Not available.
- **Vapor pressure**: Not available.
- **Vapor density**: Not available.
- **Relative density**: 0.92 (20°C)
- **Solubility(ies)**
  - **Solubility (water)**: Completely soluble in water.
  - **Partition coefficient (n-octanol/water)**: Not available.
10. Stability and reactivity

Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability
Stable under normal temperature conditions.

Possibility of hazardous reactions
Hazardous polymerization does not occur.

Conditions to avoid
Heat, sparks, flames, elevated temperatures. Ignition sources. Contact with incompatible materials.

Incompatible materials

Hazardous decomposition products
No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion
No harmful effects expected in amounts likely to be ingested by accident.

Inhalation
In high concentrations, vapors may irritate throat and respiratory system and cause coughing.

Skin contact
Direct contact may irritate.

Eye contact
Causes eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics
Irritating to eyes. Causes damage to organs (central nervous system, eyes).

Information on toxicological effects

Acute toxicity
May cause mild central nervous system effects. Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness.

Components

<table>
<thead>
<tr>
<th>Ethanol (CAS 64-17-5)</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>20000 mg/l, 10 Hours</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>7060 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Propylene glycol (CAS 57-55-6) |         |              |
| **Acute**             |         |              |
| Oral                  | Rat     | 30 g/kg      |
| LD50                  |         |              |

Skin corrosion/irritation
Direct contact may irritate.

Serious eye damage/eye irritation
Causes eye irritation.

Respiratory or skin sensitization
Respiratory sensitization
Not classified.

Skin sensitization
Not classified.

Germ cell mutagenicity
Not classified.

Carcinogenicity
This product is not considered to be a carcinogen by NTP, IARC, or OSHA.

Reproductive toxicity
Not classified.

Specific target organ toxicity - single exposure
Causes damage to organs (central nervous system, eyes).

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not classified.

12. Ecological information

Ecotoxicity
The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
13. Disposal considerations

Disposal instructions
Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

Hazardous waste code
D001: Waste Flammable material with a flash point <140 °F

Waste from residues / unused products
Dispose in accordance with all local, state and federal regulations.

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT
UN number UN1993
UN proper shipping name Flammable liquid, n.o.s. (Ethanol)
Transport hazard class(es) Class 3
Subsidiary risk -
Packing group III
Special precautions for user Not available.
Special provisions B1, B52, IB3, T4, TP1, TP29
Packaging exceptions 150
Packaging non bulk 203
Packaging bulk 242

IATA
UN number UN1993
UN proper shipping name Flammable liquid, n.o.s. (Ethanol)
Transport hazard class(es) Class 3
Subsidiary risk -
Packing group III
Environmental hazards No.
ERG Code 3L
Special precautions for user Not available.

IMDG
UN number UN1993
UN proper shipping name Flammable liquid, n.o.s. (Ethanol)
Transport hazard class(es) Class 3
Subsidiary risk -
Packing group III
Environmental hazards Marine pollutant No.
EmS F-E, S-E
Special precautions for user Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
This product meets the limited quantities exception as follows:
DOT: Limited quantities up to 5 liters.
IATA: Limited quantities up to 5 liters.
IMDG: Limited quantities up to 5 liters.
Otherwise, the above descriptions apply.

Components
Ethanol (CAS 64-17-5)

Aquatic
Species
Test Results
Ethanol (CAS 64-17-5) LC50 Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours

Persistence and degradability
Not established.

Bioaccumulative potential
Not established.

Partition coefficient n-octanol / water (log Kow)
Ethanol (CAS 64-17-5) -0.31
Propylene glycol (CAS 57-55-6) -0.92

Mobility in soil
Not established.

Other adverse effects
Not established.
15. Regulatory information

This product is hazardous according to OSHA 29 CFR 1910.1200.

**US federal regulations**

- **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
  - Not regulated.
  - Not listed.
- **CERCLA Hazardous Substance List (40 CFR 302.4)**
  - Ethanol (CAS 64-17-5) Listed

**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

- **SARA 302 Extremely hazardous substance**
  - Not listed.
- **SARA 311/312 Hazardous chemical**
  - Yes
- **SARA 313 (TRI reporting)**
  - Not regulated.

**Other federal regulations**

- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
  - Not regulated.
- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
  - Not regulated.
- **Safe Drinking Water Act (SDWA)**
  - Not regulated.

**US state regulations**

- **US. Massachusetts RTK - Substance List**
  - Ethanol (CAS 64-17-5)
- **US. New Jersey Worker and Community Right-to-Know Act**
  - Ethanol (CAS 64-17-5)
  - Propylene glycol (CAS 57-55-6)
- **US. Pennsylvania Worker and Community Right-to-Know Law**
  - Ethanol (CAS 64-17-5)
  - Propylene glycol (CAS 57-55-6)
- **US. Rhode Island RTK**
  - Not regulated.
- **US. California Proposition 65**
  - **US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**
  - Ethanol (CAS 64-17-5)

**International Inventories**

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

*A “Yes” indicates this product complies with the inventory requirements administered by the governing country(s).
A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision
Issue date: 06-June-2019
Revision date: -
Version #: 01
Further information: HMIS® is a registered trade and service mark of the NPCA.

NFPA Ratings

References
ACGIH
EPA: AQUIRE database
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

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