1. IDENTIFICATION

Product Identifier
Product Name PENETONE 2010C
Chemical Name Corrosion inhibitor

Recommended use of the chemical and restrictions on use
Recommended use Abandonment corrosion inhibition
Restrictions on use For industrial use only

Supplier details
West Penetone Inc.
11411-160 Street
Edmonton, AB,
T5M3T7
Tel: 780-454-3919

Emergency Telephone Number
Canutec (613)-996-6666 or 1-888-226-8832 – FOR 24 HOUR TRANSPORT EMERGENCY WITHIN CANADA
Chemtrec 1-800-424-9300 – FOR 24 HOUR TRANSPORT EMERGENCY WITHIN USA

2. HAZARDS IDENTIFICATION

Classification

<table>
<thead>
<tr>
<th>Flammable liquids</th>
<th>Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, oral</td>
<td>Category 3</td>
</tr>
<tr>
<td>Acute toxicity, dermal</td>
<td>Category 3</td>
</tr>
<tr>
<td>Acute toxicity, inhalation - vapors</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Specific target organ toxicity – single exposure</td>
<td>Category 1</td>
</tr>
<tr>
<td>Specific target organ toxicity – single exposure</td>
<td>Category 3</td>
</tr>
<tr>
<td>Hazardous to the aquatic environment, acute hazard</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Label Elements

DANGER

Hazard Statements
Highly flammable liquid and vapor
Toxic if swallowed or in contact with skin
Harmful if inhaled
Causes skin and serious eye irritation
Causes damage to organs
May cause respiratory irritation; drowsiness or dizziness
Toxic to aquatic life

Precautionary Statements - Prevention
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical/lighting/ventilation equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapors/spray.
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.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary Statements - Response**

IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
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 or doctor/physician.

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

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste disposal plant according to local, provincial/federal regulations.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>67-56-1</td>
<td>30-60</td>
</tr>
<tr>
<td>quaternary ammonium compounds</td>
<td>68607-28-3</td>
<td>1-5</td>
</tr>
<tr>
<td>alkylpyridine salts</td>
<td>68607-19-2</td>
<td>1-5</td>
</tr>
<tr>
<td>ammonium bisulfite</td>
<td>10192-30-0</td>
<td>0.5-1.5</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**Ingestion**
Rinse mouth. Do not induce vomiting unless directed by medical personnel. Immediately call a POISON CENTER or doctor/physician.

**Skin contact**
Take off immediately all contaminated clothing. Rinse skin with water or shower. If skin irritation occurs, get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

**Inhalation**
If difficulties occur after mist/vapors/spray has been inhaled, remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.

**Eye contact**
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.

**Most important symptoms and effects, both acute and delayed**
Contact with eyes may cause irritation, discomfort or pain, excess blinking and tear production with marked excess redness and swelling of the conjunctiva. Contact with skin may cause irritation with local redness. Prolonged contact with skin may cause dryness. Inhalation of mist/vapors/spray may be harmful and cause narcotic effects as well as irritation of the mucous membranes and upper respiratory tract leading to a burning sensation of the nose and throat, coughing, and difficulty breathing. Ingestion may be harmful and cause blindness. Oral exposure may cause irritation or a burning sensation of the mouth and throat and abdominal pain.

**Indication of any immediate medical attention and special treatment needed**
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**
None.
Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed including oxides of carbon, nitrogen and sulfur, and other irritating gases.

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
Ensure adequate ventilation. Do not breathe vapor or mist. Wear appropriate respirator when ventilation is inadequate. Put on personal protective equipment. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental Precautions
Avoid discharge into drains/surface waters/groundwater. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up
Contain and solidify with inert absorbent material. Keep in suitable, closed containers for disposal. Following product recovery, flush the area with water. For large spills, stop flow of material, prevent product from entering drains, and pump off product where this is without risk and possible. Proceed as above.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Handling Avoid contact and inhalation of mist/vapors/spray. Avoid contact with skin, eyes and clothing. Ensure thorough ventilation of work areas. Use personal protective equipment. Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage, including any incompatibilities
Storage Keep containers tightly closed away from direct sunlight in a dry, cool and well-ventilated place, away from incompatible materials.

Incompatible Materials Acids, oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters
Only constituents with exposure limits are listed. Any constituent not listed has no known exposure limit.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>TWA: 200 ppm</td>
<td>TWA: 200 ppm/260 mg/m³</td>
<td></td>
</tr>
<tr>
<td>67-56-1</td>
<td>STEL: 250 ppm</td>
<td>STEL: 250 ppm/325 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 200 ppm/260 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL: 250 ppm/325 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls
Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment
Eye/face Protection Safety glasses with side shields or goggles and/or face-shield where splashing hazards may exist.
Skin and body protection Wear protective gloves and protective clothing.
Respiratory Protection Wear respiratory protection if ventilation is inadequate. Respiratory protection in case of vapor/aerosol release.
General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Routinely wash work clothing and protective equipment to remove contaminants.
9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:
Brown liquid

ODOR:
Alcohol/amine

ODOR THRESHOLD:
Not applicable

pH:
Not available

MELTING POINT / FREEZING POINT:
< -40ºC

BOILING POINT/BOILING RANGE:
Not available

FLASH POINT:
<37.8ºC

EVAPORATION RATE, water = 1:
>1

FLAMMABILITY (SOLID, GAS):
Not applicable

VAPOUR PRESSURE, mm Hg AT 20ºC:
Not available

VAPOUR DENSITY (Air = 1):
Not available

RELATIVE DENSITY AT 20ºC:
0.850-0.900

SOLUBILITY IN WATER:
Miscible

PARTITION COEFFICIENT, N-OCTANOL/WATER:
Not available

AUTO-IGNITION TEMPERATURE:
Not available

DECOMPOSITION TEMPERATURE:
Not available

FLASH POINT:
Not available

FLAMMABLE LIMITS:
UPPER: Not available LOWER: Not available

SOLUBILITY IN WATER:
Not available

10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Stable under normal conditions.

Possibility of hazardous reactions
Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to Avoid
Avoid extreme temperatures. Store away from incompatible materials.

Incompatible Materials
Acids, oxidizing agents

Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition can lead to release of irritating gases and vapors such as oxides of carbon, nitrogen, and sulfur as well as other low molecular weight hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Acute toxicity
A⁰Eₘₙ – LD₅₀ oral – approx. >200mg/kg (rat), LD₅₀ dermal – approx. >610mg/kg (rabbit), LC₅₀ inhalation-gases – >10.3mg/L – 4 h (rat)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD₅₀ Oral</th>
<th>LD₅₀ Dermal</th>
<th>LC₅₀ Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol 67-56-1</td>
<td>100 mg/kg (rat)</td>
<td>300 mg/kg (rabbit)</td>
<td>5 mg/L (rat)</td>
</tr>
<tr>
<td>quaternary ammonium compounds 68607-28-3</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>alkytpyridine salts 68607-19-2</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>ammonium bisulfite 10192-30-0</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Information on likely sources of exposure

Ingestion: May be harmful if swallowed. May cause stomach pains.
Skin corrosion/irritation: Causes skin irritation and possible redness.
Inhalation: May cause coughing, respiratory irritation and possible damage.
Serious eye damage/irritation: Causes serious eye irritation. May cause pain, watering and redness.
Delayed and immediate effects and also chronic effects from short and long-term exposure

Respiratory or skin sensitization  Not a sensitizer.
Germ cell mutagenicity  None known.
Carcinogenicity  No listed human carcinogens.
Reproductive toxicity  No information available.
STOT - single exposure  No information available.
STOT-repeated exposure  No information available.
Aspiration Hazard  None known.

Symptoms related to the physical, chemical and toxicological characteristics
See Section 2 & 4.

12. ECOLOGICAL INFORMATION

Ecotoxicity
If available, ecotoxicity values of individual components are shown below.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Fish</th>
<th>Waterflea</th>
<th>Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetone 2010C</td>
<td>ATE&lt;sub&gt;mix&lt;/sub&gt; – 1-10 mg/L: 96 h LC50</td>
<td>ATE&lt;sub&gt;mix&lt;/sub&gt; – 1-10 mg/L: 48 h EC50</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Persistence and degradability
Expected to be readily biodegradable.

Bioaccumulative potential
Accumulation in organisms is not to be expected.

Mobility in soil
No information available

Other adverse effects
Do not release untreated into natural waters. No other adverse environmental effects are expected.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method
Dispose of in accordance with local regulations.

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

14. TRANSPORT INFORMATION

UN Number:  1992
UN Proper Shipping Name:  Flammable Liquid, Toxic, N.O.S. (methanol solution)
Transport Hazard Class(es)
Class:  TDG: 3 (6.1)  US DOT: 3 (6.1)  IMDG: 3 (6.1)
Label(s):  3 (6.1)
Packing Group:  III
Marine Pollutant:  No
Special precautions for user:  None established

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not determined

15. REGULATORY INFORMATION

Canada (DSL/NDSL)
All ingredients contained in this product are in compliance with the Canadian Environmental Protection Act and are listed on the DSL or are exempt.

United States (TSCA)
All ingredients contained in this product are listed on the TSCA inventory or are exempt.

HMIS Information:
Health:  2
Flammability:  3
Reactivity:  0
16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Preparation Date</th>
<th>16 December 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision Date</td>
<td>not applicable</td>
</tr>
<tr>
<td>Revision Note</td>
<td>not applicable</td>
</tr>
</tbody>
</table>

Disclaimer
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End of SDS