Material Safety Data Sheet

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

Product Name: CL-TKD Cleaner

Company: PANNIER CORPORATION
412-323-4900
sales@pannier.com

Telephone: INFOTRAC 24 hr telephone # 1-800-535-5053

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview

Danger: Highly flammable.
State of matter: liquid colourless
Odour: Mint-like

Potential environmental effects

Environmental precautions: Should not be released into the environment. Prevent further leakage or spillage if safe to do so.
Ecological information: See chapter 12

Potential health effects

Acute effects
Eyes: Causes eye irritation.
Skin: Prolonged or repeated contact with liquid may cause defatting resulting in drying, redness and possible blistering.
Inhalation: May cause respiratory tract irritation
Ingestion: Aspiration hazard if swallowed - can enter lungs and cause damage.

Toxicological information: See chapter 11

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Components
Butanone, ethyl methyl ketone 78-93-3 99.50

Exposure limit(s): See chapter 8
Classification and hazard labeling: See chapter 15

SECTION 4 FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician
Skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.
Inhalation: Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE-FIGHTING MEASURES

Flammability
Flash point: -9 °C
Auto ignition temperature: 515 °C

Explosion limits
Lower explosion limit: 1.4 % (V)
Upper explosion limit: 11.4 % (V)

Fire/explosion: Vapours may form explosive mixtures with air. Flash back possible over considerable distance.

Hazardous combustion products: Carbon oxides
Suitable extinguishing media: Water spray

Unsuitable extinguishing media: No information available

Protection measures and instructions: Wear self-contained breathing apparatus and protective suit.

Further information: Cool containers / tanks with water spray.
SECTION 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist. Material can create slippery conditions.

**Environmental precautions**
Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**
Soak up with inert absorbent material and dispose of as hazardous waste.

**Exposure controls / personal protection:**
See chapter 8

SECTION 7 HANDLING AND STORAGE

**Safe handling advice**
Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Ensure all equipment is electrically grounded before beginning transfer operations. Take precautionary measures against static discharges.

**Advice on protection against fire and explosion**
Keep away from heat and sources of ignition. Use explosion-proof equipment.

**Storage**
Keep containers tightly closed in a dry, cool and well-ventilated place.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures**
Provide sufficient air exchange and/or exhaust in work rooms.

**Personal protective equipment**

<table>
<thead>
<tr>
<th>Part of Body</th>
<th>Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>Safety glasses with side-shields</td>
</tr>
<tr>
<td>Skin</td>
<td>Protective suit Safety shoes</td>
</tr>
<tr>
<td>Inhalation</td>
<td>In case of insufficient ventilation, wear suitable respiratory equipment</td>
</tr>
<tr>
<td>Hand protection</td>
<td>Gloves suitable for permanent contact:</td>
</tr>
<tr>
<td></td>
<td>Material: butyl-rubber</td>
</tr>
<tr>
<td></td>
<td>Break through time: 4 H</td>
</tr>
<tr>
<td></td>
<td>Material thickness: 0.5 mm</td>
</tr>
<tr>
<td></td>
<td>Unsuitable gloves:</td>
</tr>
<tr>
<td></td>
<td>Material: Polyvinylchloride, leather, nitrile rubber / nitrile latex</td>
</tr>
<tr>
<td></td>
<td>Natural rubber / natural latex.</td>
</tr>
<tr>
<td><strong>Hygiene measures</strong></td>
<td>Wash hands before breaks and immediately after handling the product.</td>
</tr>
<tr>
<td><strong>Protective measures</strong></td>
<td>Wear suitable protective equipment</td>
</tr>
</tbody>
</table>

**Exposure Guidelines**

<table>
<thead>
<tr>
<th>Components</th>
<th>Exposure limit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-BUTANONE</td>
<td></td>
</tr>
<tr>
<td>US. ACGIH Threshold Limit Values</td>
<td>time weighted average 200 ppm</td>
</tr>
<tr>
<td>US. ACGIH Threshold Limit Values</td>
<td>Short term exposure limit 300 ppm</td>
</tr>
<tr>
<td>US. NIOSH: Pocket Guide to Chemical Hazards</td>
<td>Recommended exposure limit (REL): 200 ppm (590 mg/m3)</td>
</tr>
<tr>
<td>US NIOSH Pocket Guide to Chemical Hazards</td>
<td>Short term exposure limit 300 ppm (885 mg/m3)</td>
</tr>
<tr>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</td>
<td>Permissible exposure limit 200 ppm (590 mg/m3)</td>
</tr>
<tr>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000)</td>
<td>time weighted average 200 ppm (590 mg/m3)</td>
</tr>
<tr>
<td>US. OSHA Table Z-1-A (29 CFR 1910.1000)</td>
<td>Short term exposure limit 300 ppm (885 mg/m3)</td>
</tr>
<tr>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants Time Weighted Average (TWA)</td>
<td>Permissible Exposure Limit (PEL): 200 ppm (590 mg/m3)</td>
</tr>
<tr>
<td>US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants</td>
<td>Short term exposure limit 300 ppm (885 mg/m3)</td>
</tr>
<tr>
<td>EU. Indicative Exposure and Directives relating to the protection of risks related to work exposure to chemical, physical, and biological agents.</td>
<td>time weighted average 200 ppm (600 mg/m3)</td>
</tr>
<tr>
<td>EU Indicative Exposure and Directives relating to the protection of risks related to work exposure to chemical, physical and biological agents.</td>
<td>Short term exposure limit 300 ppm (900 mg/m3)</td>
</tr>
</tbody>
</table>

**PEL=** Permissible Exposure Limits  
**TLV=** Threshold Limit Value  
**EL=** Excursion Limit  
**TW=** Time Weighted Average (8 hr.)  
**STEL=** Short Term Exposure Limit (15 min.)  
**WEEL=** Workplace Environmental Exposure Level

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State of matter</strong></td>
<td>liquid</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>colourless</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>mint-like</td>
</tr>
<tr>
<td><strong>Form</strong></td>
<td>liquid</td>
</tr>
<tr>
<td><strong>Boiling point/boiling range</strong></td>
<td>79.6 °C</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>-9 °C closed cup 9°C open cup</td>
</tr>
<tr>
<td><strong>Lower explosion limit</strong></td>
<td>1.4 %(V)</td>
</tr>
</tbody>
</table>
Upper explosion limit: 11.4 %\text{(V)}
Vapour pressure: 121.323 mPa at 25 °C
Solubility: partly miscible
Viscosity: 0.51 mm2/s
Viscosity dynamic: 0.41 mPa.s
Melting point/range: -86.3 °C
Density: 0.805 g/cm3
pH: no data available

SECTION 10 STABILITY AND REACTIVITY

Conditions to avoid: Heat, flames and sparks
Hazardous decomposition products: Carbon oxides
Incompatible products: Strong oxidizing agents, incompatible with acids, halogenated compounds
Hazardous reactions: Hazardous polymerisation does not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute oral toxicity: LD50 rat: 2737 mg/kg; literature value
Acute inhalation toxicity: LC50 rat: 23500 mg/kg; 8 h literature value
Acute dermal toxicity: LD50 rabbit: 6480 mg/kg; literature
Skin irritation: rabbit: moderately irritating; literature value
Eye irritation: rabbit: irritating; literature value

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity effects
Toxicity to fish: LC50 Bluegill sunfish: 4,467 mg/l; 96 h; literature value
LC50 Poecilia reticulate: 5,700 mg/l; 24 h; literature value
Toxicity to daphnia: LC50 Pimephales promelas: 3,200 mg/l; 96H; literature value
Toxicity to algae: EC50 Daphnia magna: < 520 mg/l; 48 h; literature value

SECTION 13 DISPOSAL CONSIDERATIONS

Waste from residues / unused products: In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.
Uncleaned empty packaging: Do not burn, or use a cutting torch on, the empty drum. Triple rinse containers, Can be offered for recycling, re-conditioning or puncture.
Handling and storage: See chapter 7
Exposure controls / personal protection: See chapter 8

SECTION 14 TRANSPORT INFORMATION

DOT/49CFR: UN 1193 Methyl ethyl ketone, 3, II
ADR: UN 1193 Methyl ethyl ketone, 3, II
RID: UN 1193 METHYL ETHYL KETONE, 3, II
ADNR: UN 1193 METHYL ETHYL KETONE, 3, II
IMDG: UN 1193 METHYL ETHYL KETONE, 3, II, EmS F-E, S-D
ICAO/IATA: UN 1193 Methyl ethyl ketone, 3, II

SECTION 15 REGULATORY INFORMATION

U.S. Federal Classifications:
OSHA Hazards: Flammable Liquid, Mild eye irritant, Mild eye irritant
SARA 311/312: Fire Hazard, Acute Health Hazard

U.S. Regulated Ingredients:
Hazard information reporting: US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313
Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

US. Massachusetts Commonwealth’s Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)
Butanone 78-93-3

US. New Jersey Community Right-To-Know Survey, Table A: NJ Environmental Hazardous Substances [EHS] List (N.J. Admin. Code Title 7 Section 1G-2.1)

Components CAS-No.
Butanone 78-93-3

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Components CAS-No.
Butanone 78-93-3

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Spill reporting

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Components CAS-No. Reportable Quantity
Butanone 78-93-3 5,000 lbs

Health

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

Components CAS-No.
Not listed

Inventories

EU list of existing chemical substances
All chemical constituents are listed in: EU list of existing chemical substances (See chapter 3)

US TSCA Inventory
All chemical constituents are listed in: US TSCA Inventory (See chapter 3)

Australian Inv. of Chem. Substances AICS
All chemical constituents are listed in: Australian Inv. of Chem. Substances AICS (See chapter 3)

Canadian Domestic Substances List DSL
All chemical constituents are listed in: Canadian Domestic Substances List DSL (See chapter 3)

Jap. Inv. of Exist. & New Chemicals ENCS
All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals ENCS (See chapter 3)

Korean Exist. Chemicals List ECL
All chemical constituents are listed in: Korean Exist. Chemicals List ECL (See chapter 3)

Philippines Inv. of Chem. Subst. PICCS
All chemical constituents are listed in: Philippines Inv. of Chem. Subst. PICCS (See chapter 3)

Inv. of Exist. Chem. Substances in China
All chemical constituents are listed in: Inv. of Exist. Chem. Substances in China (See chapter 3)

Other international regulations

WHMIS Classification B2: Flammable Liquid

SECTION 16 OTHER INFORMATION

Hazard Ratings

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>NFPA</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

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