

Material Safety Data Sheet

Revision date: 11.18.2008

Revision 1.10

REA-JET CL-TPKD Cleaner

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**24 HOUR EMERGENCY TELEPHONE NUMBERS: CHEMTRIC DOMESTIC US/NORTH AMERICA 800-424-9300
INTERNATIONAL (OUTSIDE US): 703-527-3887**

SECTION 1 IDENTIFICATION OF THE SUBSTANCE

Trade name **CL-TPKD Cleaner**
Product number **IJ050-9009-16**
Synonyms Methyl Ethyl Ketone, 2-Butanon, 3-Butanone, Methyl acetone, Ethyl methyl ketone

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview

Danger	Highly flammable.
State of matter	liquid colorless
Odor	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 may dry skin and cause irritation
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	CAS-No.	Weight %
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 vapors. 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 closed cup; 9 °C open cup
Auto ignition temperature	515 °C
Explosion limits	Lower explosion limit: 1.4 %(V) Upper explosion limit: 11.4 %(V)
Fire/explosion	Vapors may form explosive mixtures with air. Flash back possible over considerable distance
Hazardous combustion products	Carbon oxides
Suitable extinguishing media	Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO ₂)
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

PANNIER CORPORATION

207 Sandusky Street, Pittsburgh, PA 15212-5823 U.S.A.

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Personal precautions Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapors or spray mist.

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. Take precautionary measures against static discharges. Ensure all equipment is electrically grounded before beginning transfer operations.

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

Eyes Safety glasses with side-shields

Skin Protective suit Safety shoes

Inhalation In case of insufficient ventilation, wear suitable respiratory equipment

Hand protection Gloves suitable for permanent contact:
Material: butyl-rubber
Break through time: 4 H
Material thickness: 0.5 mm

Unsuitable gloves:
Material: Polyvinylchloride, leather, nitrile rubber / nitrile latex
Natural rubber / natural latex.

Hygiene measures Wash hands before breaks and immediately after handling the product.

Protective measures Wear suitable protective equipment

Exposure Guidelines

Components Exposure limit(s)

2-BUTANONE

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

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

Color colorless

Odor mint-like

Form liquid

Boiling point/boiling range 79.6 °C

Flash point -9 °C closed cup; 9 °C open cup

Lower explosion limit 1.4 %(V)

Upper explosion limit 11.4 %(V)

Vapor pressure 121.323 hPa at 25 °C

Solubility partly miscible

Viscosity 0.51 mm²/s

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Viscosity, dynamic 0.41mPa.s
Melting point/range -86.3 °C
Density 0.805 g/cm3

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 Acetone: LD50 rat: 2,737 mg/kg; literature value
Acute inhalation toxicity Acetone: LC50 rat: 23,500 mg/l; literature value; 8 h
Acute dermal toxicity Acetone: LD50 rabbit: 6,480 mg/kg; literature
Skin irritation Acetone rabbit: moderately irritating; literature value
Eye irritation Acetone rabbit: irritating; literature value
Acetone: rabbit: irritating;

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity effects
Toxicity to fish LC50 Bluegill sunfish: 4,467 mg/l; 96 h; literature value
LC50Poecilia reticulata: 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 Classification US. EPA Resource Conservation and Recovery Act: (RCRA) D List of Characteristic Hazardous Wastes (40 CFR 261.21-24): D001
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 respiratory 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

Components

Butanone

CAS-No.

78-93-3

US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Components

Butanone

CAS-No.

78-93-3

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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

Butanone

CAS-No.

78-93-3

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

Components

Butanone

CAS-No.

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

Butanone

CAS-No.

78-93-3

Reportable Quantity

5,000 lbs.

Health

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

Components

Not listed

CAS-No.

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

D2B: Toxic Material Causing Other Toxic Effects

SECTION 16 OTHER INFORMATION

Hazard Ratings

	Health	Fire	Reactivity Hazard
HMIS	1	3	0
NFPA	1	3	0

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