

Material Safety Data Sheet

Revision date:12.15.10

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1. Product identification

Commercial product name

REA-JET CL TES 090 Solvent

Product number IJ050-9009-01

Emergency telephone: Chemtrec 24-hour telephone # 800-424-9300
International 24-hour telephone # 703-527-3887

2. Hazards Identification

Danger highly flammable
State of matter liquid clear
Odor alcoholic

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

Potential health effects

Acute effects

Eyes	Causes eye irritation
Skin	Prolonged or repeated skin 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 damages.

3. Composition/Information on Ingredients

Components	CAS No.	Weight %
Ethyl alcohol	64-17-5	85%
Isopropyl alcohol	67-63-0	9%
Methanol	67-56-1	4%
Isobutyl methyl ketone	108-10-1	1%

4. First Aid Measures

Eye Contact: Immediately flush eyes with plenty of flowing water for 15 minutes holding eyelids apart. Consult physician.

Skin Contact: Wash off immediately with soap and plenty of water while removing all contaminated clothing. Wash before reuse. If skin irritation persists, call a physician.

Inhalation: Move to fresh air. 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.

5. Fire Fighting Measures

Flammability

Flash point	13° C
Autoignition temperature	~400 ° C
Explosion limits	

Lower	4% (v)
Upper	20% (v)

Fire/explosion Flash back possible over considerable distance

Hazardous combustion products Carbon oxides

Suitable extinguishing media Water spray, alcohol resistant foam, dry chemical, carbon dioxide

Protective measures Wear self-contained breathing apparatus and protective suit.

Further information Cool containers/tanks with water spray

6. Accidental Release Measures

Personal precautions: Keep away from and upwind of spill/leak. Remove all sources of ignition. Do not breath vapors 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 a hazardous waste.

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7. Handling and Storage

Safe handling advice: Provide fresh air. Wear personal protective equipment. Ensure all equipment is electrically grounded before beginning transfer operations.

Advice on protections against fire and explosion: Use explosion-proof equipment.

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

8. Exposure Controls/Personal Protections

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

Hygiene measures: Wash hands before breaks and immediately after handling product

Protective measures: Wear suitable protective equipment

Exposure Guidelines

Components Exposure limit(s)

Ethanol

US. ACGIH Threshold Limit Values time weighted average 1,000 ppm

US. NIOSH: Pocket Guide to Chemical Hazards Recommended exposure limit (REL): 1,000 ppm (1,900 mg/m³)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Permissible exposure limit 1,000 ppm (1,900 mg/m³)

US. OSHA Table Z-1-A (29 CFR 1910.1000) time weighted average 1,000 ppm (1,900 mg/m³)

US. OSHA Table Z-1-A (29 CFR 1910.1000) Short term exposure limit 300 ppm (885 mg/m³)

Isopropyl Alcohol

US. ACGIH Threshold Limit Values time weighted average 200 ppm

US. ACGIH Threshold Limit Values Short term time exposure limit 400 ppm

US. NIOSH: Pocket Guide to Chemical Hazards Recommended exposure limit (REL): 400 ppm (980 mg/m³)

US. NIOSH: Pocket Guide to Chemical Hazards Short term exposure limit (REL): 500 ppm (1,225 mg/m³)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Permissible exposure limit 400 ppm (980 mg/m³)

US. OSHA Table Z-1-A (29 CFR 1910.1000) time weighted average 400 ppm (980 mg/m³)

US. OSHA Table Z-1-A (29 CFR 1910.1000) Short term exposure limit 500 ppm (1,225 mg/m³)

Methyl Alcohol

US. ACGIH Threshold Limit Values time weighted average 200 ppm

US. ACGIH Threshold Limit Values Short term time exposure limit 250 ppm

US. NIOSH: Pocket Guide to Chemical Hazards Recommended exposure limit (REL): 200 ppm (260 mg/m³)

US. NIOSH: Pocket Guide to Chemical Hazards Short term exposure limit (REL): 250 ppm (325 mg/m³)

Methanol

US. ACGIH Threshold Limit Values time weighted average 200 ppm

US. ACGIH Threshold Limit Values Short term time exposure limit 250 ppm

Methyl Isobutyl Ketone

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Permissible exposure limit 100 ppm (410 mg/m³)

US. OSHA Table Z-1-A (29 CFR 1910.1000) time weighted average 50 ppm

US. OSHA Table Z-1-A (29 CFR 1910.1000) Short term exposure limit 750 ppm

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

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SECTION 9 Physical and chemical properties

Color	clear
Odor	alcoholic
Form	liquid
Boiling point/boiling range	74-80 °C
Flash point	13 °C
Lower explosion limit	4 %(V)
Upper explosion limit	20 %(V)
Vapor pressure	ca. 66.661 hPa at 25 °C
Solubility	miscible
Melting point/range	-114 °C
Density	0.79 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 polymerization does not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute oral toxicity	Ethanol	LD50 rat: 7,060 mg/kg; literature value
	Methyl Isobutyl Ketone	LD50 rat: 2,080 mg/kg; literature value
	Methanol	LD50 rat: 5,628 mg/kg
Acute inhalation toxicity	Ethanol	LC50 rabbit: 66,000 mg/l; literature; 4 h
	Isopropyl alcohol	LC50 rabbit: 16,000 mg/l; literature; 8 h
	Methanol	LC50 rat: 100 g/m3; literature
Acute dermal toxicity	Ethanol	LDLo rabbit: 20,000 mg/kg literature value
	Methyl Isobutyl Ketone	LDLo rabbit: 1,600 mg/kg literature value
	Methanol	LDLo rabbit: 15,800 mg/kg literature value
Skin irritation	Isopropyl alcohol	rabbit: mild skin irritation; literature value
	Methyl Isobutyl Ketone	rabbit: mild skin irritation; literature value
Eye irritation	Isopropyl alcohol	rabbit: moderate eye irritation; literature value
	Methyl Isobutyl Ketone	rabbit: moderate eye irritation; literature value

SECTION 12 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.

SECTION 13 TRANSPORT INFORMATION

DOT/49CFR	UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II
ADR	UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II
RID	UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II
ADNR	UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II
IMDG	UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II, EmS F-E, S-D
ICAO/IATA	UN 1987 Alcohols, N.O.S. (ethanol, iso-propanol), 3, II

SECTION 14 REGULATORY INFORMATION

U.S. Federal Classifications:

OSHA Hazards	Flammable Liquid, Mild eye irritant, Mild respiratory irritant
SARA 311/312	Fire Hazard, Acute Health Hazard

PANNIER CORPORATION

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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

CAS-No.

Methanol	67-56-1
4-methylpentan-2-one; isobutyl methyl ketone	108-10-1

Inventories

EU list of existing chemical substances

All chemical constituents are listed in: EU list of existing chemical substances

US TSCA Inventory

All chemical constituents are listed in: US TSCA Inventory \

Australian Inv. of Chem. Substances AICS

All chemical constituents are listed in: Australian Inv. of Chem. Substances AICS

Canadian Domestic Substances List DSL

All chemical constituents are listed in: Canadian Domestic Substances List DSL

Jap. Inv. of Exist. & New Chemicals ENCS

All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals ENCS

Korean Exist. Chemicals List ECL

All chemical constituents are listed in: Korean Exist. Chemicals List ECL

Philippines Inv. of Chem. Subst. PICCS

All chemical constituents are listed in: Philippines Inv. of Chem. Subst. PICCS

Inv. of Exist. Chem. Substances in China

All chemical constituents are listed in: Inv. of Exist. Chem. Substances in China

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

Disclaimer of Liability

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