

Jet Set 10 (282)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 12/14/20 Supersedes: 11/07/14

Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1. Product Identifier

Product Name and Code:

Jet Set 10 (282)

1.2. Intended Use of the Product

Use of the substance/mixture: PU Injection Resin / Waterproofing

1.3. Name, Address, and Telephone of the Responsible Party

Company

Kaufman Products, Inc.
3811 Curtis Avenue
Baltimore, MD 21226-1131
410-354-8600

<http://www.kaufmanproducts.net/>

1.4. Emergency Telephone Number

Emergency Number : 800-424-9300

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Skin irritant, 2	H315
Skin Sens. 1	H317
Serious eye damage, eye irritant, 2A	H319
Acute Toxicity, inhalation 4	H332
Resp. Sens. 1	H334
STOT SE 3	H335
Carc. 2	H351
STOT RE 2	H373

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

Danger

Hazard Statements

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer.

K A U F M A N

PRODUCT
INFORMATION

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Precautionary Statements (GHS-US)

H373 - May cause damage to organs through prolonged or repeated exposure

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P261 - Avoid breathing mist, spray, vapors

P264 - Wash thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area

P272 - Contaminated work clothing should not be allowed out of the workplace.

P280 - Wear eye protection, protective clothing, protective gloves

P284 - [In case of inadequate ventilation] Wear respiratory protection.

P302+P352 - IF ON SKIN: wash with plenty of water.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P304+P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 +P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P308+P313 - IF exposed or concerned: Get medical advice/attention.

P312 - Call a POISON CENTER or doctor if you feel unwell.

P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see on this label).

P332+P313 - IF SKIN irritation occurs: Get medical advice/attention.

P333+P313 - IF SKIN irritation or rash occurs: Get medical advice/attention.

P337+P313 - IF eye irritation persists: Get medical advice/attention.

P342 - If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P363 - Wash contaminated clothing before reuse.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other Hazards

No additional information available

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

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3.2. Mixture: Jet Set 10

Name	Product identifier	%	Classification (GHS-US)
methylenediphenyl diisocyanate	(CAS No) 26447-40-5	10-25	
diphenylmethanediisocyanate, isomeres and homologues	(CAS No) 9016-87-9	2.5-10	
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol, polymer with 1,1-methylenebis(isocyanatobenzene)	(CAS No) 112898-48-3	2.5-10	
4,4'-methylenediphenyl diisocyanate	(CAS No) 101-68-8	2.5-10	

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General: Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident.

First-aid Measures After Inhalation: Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably inside position for transportation.

First-aid Measures After Skin Contact: Immediately wash with water and soap and rinse thoroughly.

First-aid Measures After Eye Contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

First-aid Measures After Ingestion: If symptoms persist consult doctor

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries: No further relevant information available.

Symptoms/Injuries After Inhalation: No further relevant information available.

Symptoms/Injuries After Skin Contact: No further relevant information available.

Symptoms/Injuries After Eye Contact: No further relevant information available.

Symptoms/Injuries After Ingestion: No further relevant information available.

Chronic Symptoms: No further relevant information available.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

No further relevant information available.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use firefighting measures that suit the environment.

Unsuitable Extinguishing Media: Use firefighting measures that suit the environment.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: No further relevant information available.

Explosion Hazard: Not established

Reactivity: Not reactive

5.3. Advice for Firefighters

Firefighting Instructions: Mouth respiratory protective device.

Protection During Firefighting: Mouth respiratory protective device.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Not required

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

6.2. Environmental Precautions

Do not allow to enter sewers/ surface or ground water.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Methods for Cleaning Up: Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

. Releases may be reportable to local, state, and/or federal authorities.

6.4. Reference to Other Sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

6.5. Protective Action Criteria for Chemicals

PAC-1:		
methylenediphenyl diisocyanate	26447-40-5	29 mg/m3
diphenylmethanediisocyanate, isomeres and homologues	9016-87-9	0.15 mg/m3
4,4'-methylenediphenyl diisocyanate	101-68-8	0.45 mg/m3

PAC-2:		
methylenediphenyl diisocyanate	26447-40-5	40 mg/m3
diphenylmethanediisocyanate, isomeres and homologues	9016-87-9	3.6 mg/m3
4,4'-methylenediphenyl diisocyanate	101-68-8	5 mg/m3

PAC-3:		
methylenediphenyl diisocyanate	26447-40-5	240 mg/m3
diphenylmethanediisocyanate, isomeres and homologues	9016-87-9	22 mg/m3
4,4'-methylenediphenyl diisocyanate	101-68-8	55 mg/m3

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Avoid contact with skin and eyes.

Precautions for Safe Handling: Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

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Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Store in cool, dry place.

Storage Conditions: Keep container closed when not in use.

Storage Area: Store locked up. Keep receptacle tightly sealed.

7.3. Specific End Use(s): Injection resin - Waterproofing

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters:

4,4'-methylenediphenyl diisocyanate (CAS No) 101-68-8

PEL	Ceiling limit value	0.2 mg/m ³ , 0.02 ppm
REL	Long-term value	0.05 mg/m ³ , 0.005 ppm
	Ceiling limit value (*10-min)	0.2* mg/m ³ , 0.02* ppm
TLV	Long-term value	0.051 mg/m ³ , 0.005 ppm

8.2. Exposure Controls

Appropriate Engineering Controls

: Ensure all national/local regulations are observed.

Personal Protective Equipment

: Gloves. Protective goggles.



Materials for Protective Clothing

: Chemically resistant materials and fabrics.

Hand Protection

: Wear chemically resistant protective gloves.

Eye Protection

: Chemical goggles or safety glasses.

Skin and Body Protection

: Wear suitable protective clothing.

Respiratory Protection

: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Other Information

: Keep away from foodstuffs, beverages, and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Fluid
Appearance	: Yellow Tint
Odor	: Characteristic
Odor Threshold	: No data available
pH	: No Data available
Relative Evaporation Rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available

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Flash Point	: No data available
Ignition Temperature	: 400 °C (752 °F)
Auto-ignition Temperature	: Product is not self-igniting
Danger of Explosion	: Product does not present an explosion hazard.
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: 0.2 hPa
Relative Density	: No data available
Solubility	: Not miscible or difficult to mix.
Log Pow	: No data available
Log Kow	: No data available
Viscosity	: No data available

9.2. Other Information

VOC content	: 0.0% (0.0 lb/g)
Organic Solvents	: 0.0%

SECTION 10 : STABILITY AND REACTIVITY

- 10.1 **Reactivity:** No further relevant information available.
- 10.2 **Chemical Stability:** No data available
- 10.3 **Possibility of Hazardous Reactions:** Reacts with water
- 10.4 **Conditions to Avoid:** No decomposition if used according to specifications.
- 10.5 **Incompatible Materials:** No further relevant information available
- 10.6 **Hazardous Decomposition Products:** No dangerous decomposition products known

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects

Acute Toxicity: No data available

methylenediphenyl diisocyanate (CAS No) 26447-40-5	
LD 50 Oral	>2000 mg/kg (rat)
LD 50 Dermal	>9400 mg/kg (rat)
diphenylmethanediisocyanate, isomeres and homologues (CAS No) 9016-87-9	
LD50 Oral	>10000 mg/kg (rat)
LD 50 Dermal	>9400 mg/kg (rabbit)
LD 50/4h Inhalative	0.49 mg/l (rat)
4,4'-methylenediphenyl diisocyanate (CAS No) 101-68-8	
LD50 Oral	2200 mg/kg (mouse) >10000 mg/kg (rat)
LD 50 Dermal	>9400 mg/kg (rabbit)
LD 50/4h Inhalative	0.49 mg/l (rat)

Skin Corrosion/Irritation: Irritant to skin and mucous membranes.

Serious Eye Damage/Irritation: Irritating effect.

Respiratory or Skin Sensitization: Sensitization possible through inhalation.

Germ Cell Mutagenicity: No data available

Carcinogenicity: No data available

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Reproductive Toxicity: No data available.

Specific Target Organ Toxicity (Single Exposure): No data available

Specific Target Organ Toxicity (Repeated Exposure): No data available

Aspiration Hazard: No data available

Potential Adverse Human Health Effects and Symptoms: Harmful & Irritating.

Symptoms/Injuries After Inhalation: Harmful & Irritating.

Symptoms/Injuries After Skin Contact: Harmful & Irritating.

Symptoms/Injuries After Eye Contact: Harmful & Irritating.

Symptoms/Injuries After Ingestion: No data available

Chronic Symptoms: No data available

Carcinogenic Categories:

IARC (International Agency for Research on Cancer)		
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	3
101-68-8	4,4'-methylenediphenyl diisocyanate	3
NTP (National Toxicology Program)		
None of the ingredients is listed.		
OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

SECTION 12: ECOLOGICAL INFORMATION

12.1. Aquatic Toxicity

Ecology - General : Very toxic to aquatic life

methylenediphenyl diisocyanate (CAS No) 26447-40-5	
LC50/96 h	>1000 mg/l (zebra fish)
EC50/48 h	>1000 mg/l (daphnia)
diphenylmethanediisocyanate, isomeres and homologues (CAS No) 9016-87-9	
EC50/24 h	>1000 mg/l (daphnia)
EC50/96 h	>1000 mg/l (fish)
EC50/72 h	>1640 mg/l (algae)
4,4'-methylenediphenyl diisocyanate (CAS No) 101-68-8	
LC50/96 h	>1000 mg/l (fish)
EC50/24 h	>1000 mg/l (daphnia)

12.2. Persistence and Degradability

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Persistence and Degradability	No further relevant information available.

12.3. Bioaccumulative Potential

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Bioaccumulative Potential	No further relevant information available

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12.4. Mobility in Soil: No further relevant information available

12.5. Other Adverse Effects

Other Information

: Water hazard class 1 (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Additional Information: Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT :

Proper Shipping Name : not regulated
Hazard Class : not regulated
Identification Number : not regulated
Label Codes : not regulated
Packing Group : not regulated
ERG Number : not regulated

14.2 In Accordance with IMDG

Proper Shipping Name : not regulated
Hazard Class : not regulated
Identification Number : not regulated

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Section 355	extremely hazardous substances
None of the ingredients is listed.	
Section 313	Specific toxic chemical listings
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues
101-68-8	4,4'-methylenediphenyl diisocyanate
TSCA (Toxic Substances Control Act):	
28553-12-0	di-"isononyl" phthalate
26447-40-5	methylenediphenyl diisocyanate
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues
112898-48-3	Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol, polymer with 1,1- methylenebis(isocyanatobenzene)
101-68-8	4,4'-methylenediphenyl diisocyanate
Proposition 65	
Chemicals known to cause cancer:	
28553-12-0	di-"isononyl" phthalate

K A U F M A N

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Chemicals known to cause reproductive toxicity for females:		
None of the ingredients is listed.		
Chemicals known to cause reproductive toxicity for males:		
None of the ingredients is listed.		
Chemicals known to cause developmental toxicity:		
None of the ingredients is listed.		
Carcinogenic categories		
EPA (Environmental Protection Agency)		
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	CBD
101-68-8	4,4'-methylenediphenyl diisocyanate	D, CBD
TLV (Threshold Limit Value established by ACGIH)		
None of the ingredients is listed.		
NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		

SECTION 16: OTHER INFORMATION

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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