

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : JET-LOK II Side B

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Threadlock Kit
 Use of the substance/mixture : Epoxy Hardener

1.3. Supplier

Manufacturer

Jet-Lube
 930 Whitmore Drive
 Rockwall, Texas 75087 - USA
 T 1.972.771.1000
Regulatory@whitmores.com - www.jetlube.com

1.4. Emergency telephone number

Emergency number : For Chemical Emergency Call CHEMTREC 24hr/day 7days/week
 Within USA and Canada: 1.800.424.9300
 Outside USA and Canada: +1.703.527.3887
 (collect calls accepted)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Acute toxicity (dermal) Category 4	H312	Harmful in contact with skin
Skin corrosion/irritation Category 1B	H314	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage
Respiratory sensitization, Category 1	H334	May cause an allergy or asthma symptoms or breathing difficulties if inhaled
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Reproductive toxicity Category 2	H361	Suspected of damaging fertility or the unborn child
Specific target organ toxicity (single exposure) Category 1	H370	Causes damage to organs
Specific target organ toxicity (repeated exposure) Category 1	H372	Causes damage to organs through prolonged or repeated exposure

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H302+H312 - Harmful if swallowed or in contact with skin
 H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage

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Precautionary statements (GHS US)	<p>H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled H361 - Suspected of damaging fertility or the unborn child H370 - Causes damage to organs H372 - Causes damage to organs through prolonged or repeated exposure</p> <p>: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe vapors. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P272 - Contaminated work clothing must not be allowed out of the workplace. P280 - Wear eye protection, protective gloves. P284 - [In case of inadequate ventilation] wear respiratory protection. P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting. P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P341 - If inhaled: If breathing is difficult, remove person to fresh air and keep 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. P307+P311 - If exposed: Call a poison center/doctor. P310 - Immediately call a poison center or doctor. P321 - Specific treatment (see supplemental first aid instruction on this label). P330 - Rinse mouth. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P342+P311 - If experiencing respiratory symptoms: Call a poison center or doctor. P362+P364 - Take off contaminated clothing and wash it before reuse. P405 - Store locked up. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.</p>
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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
tetraethylenepentamine	(CAS-No.) 112-57-2	40 - 50	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1, H317 Repr. 2, H361 STOT SE 1, H370 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Benzyl Alcohol	(CAS-No.) 100-51-6	20 - 30	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 3 (Inhalation:vapour), H331
Triethylenetetramine	(CAS-No.) 112-24-3	5 - 10	Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.

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| First-aid measures after skin contact | : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. |
| First-aid measures after ingestion | : Rinse mouth. Do not induce vomiting. Call a physician immediately. |

4.2. Most important symptoms and effects (acute and delayed)

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|-------------------------------------|---|
| Symptoms/effects after inhalation | : May cause an allergy or asthma symptoms or breathing difficulties if inhaled. |
| Symptoms/effects after skin contact | : Burns. May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : Serious damage to eyes. |
| Symptoms/effects after ingestion | : Burns. |

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
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5.2. Specific hazards arising from the chemical

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| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |
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5.3. Special protective equipment and precautions for fire-fighters

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| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

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| Emergency procedures | : Exercise caution. Spill area may be slippery. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes and clothing. |
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6.1.2. For emergency responders

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| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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| Methods for cleaning up | : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. |
| Other information | : Dispose of materials or solid residues at an authorized site. |

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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| Precautions for safe handling | : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. |
| Hygiene measures | : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

7.2. Conditions for safe storage, including any incompatibilities

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| Storage conditions | : Store locked up. Store in a well-ventilated place. Keep cool. |
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available
tetraethylenepentamine (112-57-2)
No additional information available
Benzyl Alcohol (100-51-6)
No additional information available
Triethylenetetramine (112-24-3)
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves. Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : amber
Odor : Amine-like Ammonia odour
Odor threshold : No data available
pH : No data available
Melting point : Not applicable
Freezing point : No data available
Boiling point : No data available
Flash point : > 117 °C
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Not applicable.
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : No data available
Specific gravity / density : 1
Solubility : No data available
Partition coefficient n-octanol/water (Log Pow) : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosion limits : No data available
Explosive properties : No data available
Oxidizing properties : No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Harmful in contact with skin.
Acute toxicity (inhalation)	: Not classified

ATE US (oral)	890.788 mg/kg body weight
ATE US (dermal)	1107.383 mg/kg body weight

tetraethylenepentamine (112-57-2)

LD50 oral rat	3990 mg/kg
LD50 dermal rabbit	660 mg/kg
LC50 Inhalation - Rat	> 9.9 mg/l air (8 h, Rat, Male, Literature study, Inhalation)
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	660 mg/kg body weight

Benzyl Alcohol (100-51-6)

LD50 oral rat	1620 mg/kg bw/day (Rat, Male, Experimental value, Oral)
LD50 dermal rat	2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Inconclusive, insufficient data, Dermal)
LC50 Inhalation - Rat	> 4.178 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
ATE US (oral)	1230 mg/kg body weight
ATE US (dermal)	2000 mg/kg body weight
ATE US (vapors)	8.9 mg/l/4h

Triethylenetetramine (112-24-3)

LD50 oral rat	2500 mg/kg (Rat, Literature, Oral)
LD50 dermal rabbit	805 mg/kg (Rabbit, Literature, Dermal)
ATE US (oral)	2500 mg/kg body weight
ATE US (dermal)	550 mg/kg body weight

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.

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STOT-single exposure : Causes damage to organs.

tetraethylenepentamine (112-57-2)	
STOT-single exposure	Causes damage to organs.

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

tetraethylenepentamine (112-57-2)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Benzyl Alcohol (100-51-6)	
NOAEL (oral,rat,90 days)	400 mg/kg body weight Animal: rat, Guideline: other:OECD Guideline 451 (Carcinogenicity Studies)

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Symptoms/effects after inhalation : May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

tetraethylenepentamine (112-57-2)	
LC50 fish 1	420 mg/l (EU Method C.1, 96 h, Poecilia reticulata, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	24.1 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Experimental value, GLP)
ErC50 (algae)	0.12 mg/l

Benzyl Alcohol (100-51-6)	
LC50 fish 1	460 mg/l
EC50 Daphnia 1	230 mg/l
ErC50 (algae)	770 mg/l
NOEC (chronic)	51 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Triethylenetetramine (112-24-3)	
LC50 fish 1	495 mg/l (96 h, Pimephales promelas, Fresh water, Literature study)
EC50 Daphnia 1	31.1 mg/l
ErC50 (algae)	≥ 100 mg/l (DIN 38412-9, 72 h, Scenedesmus subspicatus, Literature study, Growth)

12.2. Persistence and degradability

tetraethylenepentamine (112-57-2)	
Persistence and degradability	Not readily biodegradable in water.

Benzyl Alcohol (100-51-6)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.6 g O ₂ /g substance
Chemical oxygen demand (COD)	2.4 g O ₂ /g substance
ThOD	2.5 g O ₂ /g substance

Triethylenetetramine (112-24-3)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

tetraethylenepentamine (112-57-2)	
BCF fish 1	3.162 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-3.16 (Estimated value, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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Benzyl Alcohol (100-51-6)	
Partition coefficient n-octanol/water (Log Pow)	1 – 1.1 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Triethylenetetramine (112-24-3)	
BCF other aquatic organisms 1	3.162 (BCFBAF v3.01, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	-2.65 (Estimated value, KOWWIN)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

tetraethylenepentamine (112-57-2)	
Partition coefficient n-octanol/water (Log Koc)	3.04 (log Koc, Calculated value)
Ecology - soil	Low potential for mobility in soil.
Benzyl Alcohol (100-51-6)	
Surface tension	39 mN/m (20 °C)
Ecology - soil	No (test)data on mobility of the substance available.
Triethylenetetramine (112-24-3)	
Partition coefficient n-octanol/water (Log Koc)	1.885 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN2259 Triethylenetetramine, 8, II
UN-No.(DOT) : UN2259
Proper Shipping Name (DOT) : Triethylenetetramine
Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136
Packing group (DOT) : II - Medium Danger
Hazard labels (DOT) : 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

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DOT Special Provisions (49 CFR 172.102)	: B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3) TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 30 L
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters", 52 - Stow "separated from" acids
Emergency Response Guide (ERG) Number	: 153
Other information	: No supplementary information available.

Transportation of Dangerous Goods

Transport document description	: UN2259 TRIETHYLENETETRAMINE, 8, II
UN-No. (TDG)	: UN2259
Proper Shipping Name (Transportation of Dangerous Goods)	: TRIETHYLENETETRAMINE
TDG Primary Hazard Classes	: 8 - Class 8 - Corrosives
Packing group	: II - Medium Danger
Explosive Limit and Limited Quantity Index	: 1 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: 1 L

Transport by sea

Transport document description (IMDG)	: UN 2259 TRIETHYLENETETRAMINE (SOLUTION), 8, II
UN-No. (IMDG)	: 2259
Proper Shipping Name (IMDG)	: TRIETHYLENETETRAMINE
Class (IMDG)	: 8 - Corrosive substances
Packing group (IMDG)	: II - substances presenting medium danger
Limited quantities (IMDG)	: 1 L

Air transport

Transport document description (IATA)	: UN 2259 Triethylenetetramine (SOLUTION), 8, II
UN-No. (IATA)	: 2259
Proper Shipping Name (IATA)	: Triethylenetetramine
Class (IATA)	: 8 - Corrosives
Packing group (IATA)	: II - Medium Danger

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SECTION 15: Regulatory information

15.1. US Federal regulations

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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

tetraethylenepentamine (112-57-2)

Listed on the Canadian DSL (Domestic Substances List)

Benzyl Alcohol (100-51-6)

Listed on the Canadian DSL (Domestic Substances List)

Triethylenetetramine (112-24-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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Full text of H-phrases:

H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H331	Toxic if inhaled
H334	May cause an allergy or asthma symptoms or breathing difficulties if inhaled
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.