

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : MOLY-MIST™ Aerosol

1.2. Recommended use and restrictions on use

Recommended use : Lubricants, Greases and Release Products

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

| | | |
|---|------|--|
| Flammable aerosol Category 1 | H222 | Extremely flammable aerosol |
| Gases under pressure | H280 | Contains gas under pressure; may explode if heated |
| Liquefied gas | | |
| Serious eye damage/eye irritation Category 2A | H319 | Causes serious eye irritation |
| Skin sensitization, Category 1 | H317 | May cause an allergic skin reaction |
| Reproductive toxicity Category 1B | H360 | May damage fertility or the unborn child |
| Specific target organ toxicity (single exposure) Category 3 | H336 | May cause drowsiness or dizziness |
| Aspiration hazard Category 1 | H304 | May be fatal if swallowed and enters airways |

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) :

: H222 - Extremely flammable aerosol
 H280 - Contains gas under pressure; may explode if heated
 H304 - May be fatal if swallowed and enters airways
 H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation
 H336 - May cause drowsiness or dizziness
 H360 - May damage fertility or the unborn child

Precautionary statements (GHS US) :

: P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 - Do not spray on an open flame or other ignition source.

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P251 - Pressurized container: Do not pierce or burn, even after use.
P261 - Avoid breathing mist, spray, vapors.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear eye protection, protective gloves.
P301+P310 - If swallowed: Immediately call a poison center or doctor.
P302+P352 - If on skin: Wash with plenty of water.
P304+P340 - If inhaled: 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.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a poison center or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P331 - Do NOT induce vomiting.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P410+P403 - Protect from sunlight. Store in a well-ventilated place.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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 |
|--|---------------------|-----------|---|
| Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. | (CAS-No.) 67-64-1 | 30 - 40 | Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336 |
| Propane | (CAS-No.) 74-98-6 | 20 - 30 | Flam. Gas 1, H220 Flam. Aerosol 1, H222 Press. Gas (Liq.), H280 |
| Methyl ethyl ketone | (CAS-No.) 78-93-3 | 15 - 20 | Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336 |
| Xylene | (CAS-No.) 1330-20-7 | 5 - 10 | Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 STOT SE 3, H336 |
| methyl propyl ketone | (CAS-No.) 107-87-9 | 1 - 5 | Flam. Liq. 2, H225 Eye Irrit. 2A, H319 |
| Ethylbenzene | (CAS-No.) 100-41-4 | 0.1 - 1 | Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:vapour), H332 STOT RE 2, H373 Asp. Tox. 1, H304 |
| N-methyl-2-pyrrolidone | (CAS-No.) 872-50-4 | 0.1 - 0.3 | Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1B, H360 STOT SE 3, H335 |
| Cobalt 2-ethylhexanoate | (CAS-No.) 136-52-7 | 0.1 - 1 | Eye Irrit. 2, H319 Skin Sens. 1A, 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.

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| | |
|---------------------------------------|--|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : Do not induce vomiting. Call a physician immediately. |

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

| | |
|-------------------------------------|--|
| Symptoms/effects | : May cause drowsiness or dizziness. |
| Symptoms/effects after skin contact | : May cause an allergic skin reaction. |
| Symptoms/effects after eye contact | : Eye irritation. |
| Symptoms/effects after ingestion | : Risk of lung edema. |

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
|------------------------------|--|

5.2. Specific hazards arising from the chemical

| | |
|-------------|--------------------------------|
| Fire hazard | : Extremely flammable aerosol. |
|-------------|--------------------------------|

5.3. Special protective equipment and precautions for fire-fighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|--|
| Emergency procedures | : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapours/spray. |
|----------------------|--|

6.1.2. For emergency responders

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

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| Methods for cleaning up | : Mechanically recover the product. 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

| | |
|-------------------------------|--|
| Precautions for safe handling | : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. |
| Hygiene measures | : Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. 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

| | |
|--------------------|--|
| Storage conditions | : Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Keep container tightly closed. Keep cool. |
|--------------------|--|

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| MOLY-MIST™ Aerosol | |
|---|--|
| No additional information available | |
| Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1) | |
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Acetone |
| ACGIH TWA (ppm) | 250 ppm |
| ACGIH STEL (ppm) | 500 ppm |
| Remark (ACGIH) | TLV® Basis: URT & eye irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI |
| Regulatory reference | ACGIH 2019 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Acetone |
| OSHA PEL (TWA) (mg/m ³) | 2400 mg/m ³ |
| OSHA PEL (TWA) (ppm) | 1000 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| Propane (74-98-6) | |
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Propane |
| Remark (ACGIH) | TLV® Basis: Simple Asphyxiant |
| Regulatory reference | ACGIH 2019 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Propane |
| OSHA PEL (TWA) (mg/m ³) | 1800 mg/m ³ |
| OSHA PEL (TWA) (ppm) | 1000 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| Methyl ethyl ketone (78-93-3) | |
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Methyl ethyl ketone (MEK) |
| ACGIH TWA (ppm) | 200 ppm |
| ACGIH STEL (ppm) | 300 ppm |
| Remark (ACGIH) | TLV® Basis: URT irr; CNS & PNS impair. Notations: BEI |
| Regulatory reference | ACGIH 2019 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | 2-Butanone (Methyl ethyl ketone) |
| OSHA PEL (TWA) (mg/m ³) | 590 mg/m ³ |
| OSHA PEL (TWA) (ppm) | 200 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| Xylene (1330-20-7) | |
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Xylene, mixed isomers (Dimethylbenzene) |
| ACGIH TWA (ppm) | 100 ppm |
| ACGIH STEL (ppm) | 150 ppm |
| Remark (ACGIH) | TLV® Basis: URT & eye irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI |
| Regulatory reference | ACGIH 2019 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Xylenes (o-, m-, p-isomers) |
| OSHA PEL (TWA) (mg/m ³) | 435 mg/m ³ |
| OSHA PEL (TWA) (ppm) | 100 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |

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| methyl propyl ketone (107-87-9) | |
|---|---|
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Methyl propyl ketone |
| ACGIH STEL (ppm) | 150 ppm |
| Remark (ACGIH) | TLV® Basis: Pulm func; eye irr |
| Regulatory reference | ACGIH 2019 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | 2-Pentanone (Methyl propyl ketone) |
| OSHA PEL (TWA) (mg/m ³) | 700 mg/m ³ |
| OSHA PEL (TWA) (ppm) | 200 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| Ethylbenzene (100-41-4) | |
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Ethylbenzene |
| ACGIH TWA (ppm) | 20 ppm |
| Remark (ACGIH) | TLV® Basis: URT irr; kidney dam (nephropathy); cochlear impair. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI |
| Regulatory reference | ACGIH 2019 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Ethyl benzene |
| OSHA PEL (TWA) (mg/m ³) | 435 mg/m ³ |
| OSHA PEL (TWA) (ppm) | 100 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| N-methyl-2-pyrrolidone (872-50-4) | |
| No additional information available | |
| Cobalt 2-ethylhexanoate (136-52-7) | |
| 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

Eye protection:

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
Appearance : Aerosols.
Color : Black
Odor : Acetone odour
Odor threshold : No data available
pH : No data available
Melting point : Not applicable

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| | |
|---|---------------------------------|
| Freezing point | : No data available |
| Boiling point | : > 36 °C (Based on components) |
| Flash point | : < 0 °C (Liquid portion) |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Extremely flammable aerosol. |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Specific gravity / density | : 0.85 |
| Solubility | : No data available |
| 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 |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol.

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

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

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) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

| Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1) | |
|---|---|
| LD50 oral rat | 5800 mg/kg body weight Animal: rat, Animal sex: female |
| LD50 dermal rabbit | 20000 mg/kg (Equivalent or similar to OECD 402, Rabbit, Male, Experimental value, Dermal) |
| LC50 inhalation rat (mg/l) | 76 mg/l air Animal: rat, Animal sex: female, 95% CL: 65,2 - 88,4 |
| ATE US (oral) | 5800 mg/kg body weight |
| ATE US (dermal) | 20000 mg/kg body weight |
| Propane (74-98-6) | |
| LC50 inhalation rat (ppm) | > 800000 ppm (15 minutes, Rat, Male / female, Experimental value, Inhalation (gases)) |
| Methyl ethyl ketone (78-93-3) | |
| LD50 oral rat | 2193 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male / female, Read-across, Oral) |

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| Methyl ethyl ketone (78-93-3) | |
|---|---|
| LD50 dermal rabbit | > 10 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal) |
| ATE US (oral) | 2193 mg/kg body weight |
| ATE US (vapors) | 34.5 mg/l/4h |
| Xylene (1330-20-7) | |
| LD50 oral rat | 3523 mg/kg body weight (Equivalent or similar to EU Method B.1: Acute Toxicity (Oral), Rat, Male, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rabbit | 12126 mg/kg body weight Animal: rabbit, Animal sex: male |
| ATE US (oral) | 3523 mg/kg body weight |
| ATE US (dermal) | 1700 mg/kg body weight |
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 11 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |
| methyl propyl ketone (107-87-9) | |
| LD50 oral rat | 1600 - 3200 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity) |
| LC50 inhalation rat (mg/l) | > 25.5 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method) |
| ATE US (oral) | 1600 mg/kg body weight |
| Ethylbenzene (100-41-4) | |
| LD50 oral rat | 3500 mg/kg (Rat, Male / female, Experimental value, Oral) |
| LD50 dermal rabbit | 15432 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal) |
| LC50 inhalation rat (mg/l) | 17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours)) |
| ATE US (oral) | 3500 mg/kg body weight |
| ATE US (dermal) | 15432 mg/kg body weight |
| ATE US (gases) | 4500 ppmV/4h |
| ATE US (vapors) | 17.8 mg/l/4h |
| ATE US (dust, mist) | 1.5 mg/l/4h |
| N-methyl-2-pyrrolidone (872-50-4) | |
| LD50 oral rat | 4150 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 3100 - 5560 |
| LD50 dermal rat | > 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LC50 inhalation rat (mg/l) | > 5.1 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity) |
| ATE US (oral) | 4150 mg/kg body weight |
| Cobalt 2-ethylhexanoate (136-52-7) | |
| LD50 oral rat | 3129 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), 95% CL: 1750 - 5000 |
| LD50 dermal rat | > 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| ATE US (oral) | 3129 mg/kg body weight |
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Respiratory or skin sensitization | : May cause an allergic skin reaction. |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Xylene (1330-20-7) | |
| IARC group | 3 - Not classifiable |
| Ethylbenzene (100-41-4) | |
| IARC group | 2B - Possibly carcinogenic to humans |

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| N-methyl-2-pyrrolidone (872-50-4) | |
|--|---|
| NOAEL (chronic,oral,animal/male,2 years) | ≈ 89 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:Effect type: toxicity (migrated information) |
| NOAEL (chronic,oral,animal/female,2 years) | ≈ 221 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:Effect type: toxicity (migrated information) |

Reproductive toxicity : May damage fertility or the unborn child.

| Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1) | |
|---|--|
| LOAEL (animal/female, F0/P) | 11298 mg/kg body weight Animal: mouse, Animal sex: female |
| NOAEL (animal/male, F0/P) | 900 mg/kg body weight Animal: rat, Animal sex: male, Remarks on results: other:Generation not specified (migrated information) |

STOT-single exposure : May cause drowsiness or dizziness.

| Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1) | |
|---|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |

| Methyl ethyl ketone (78-93-3) | |
|--------------------------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |

| Xylene (1330-20-7) | |
|---------------------------|------------------------------------|
| STOT-single exposure | May cause drowsiness or dizziness. |

| N-methyl-2-pyrrolidone (872-50-4) | |
|--|-----------------------------------|
| STOT-single exposure | May cause respiratory irritation. |

STOT-repeated exposure : Not classified

| Xylene (1330-20-7) | |
|----------------------------|--|
| LOAEL (oral, rat, 90 days) | 150 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity) |

| Ethylbenzene (100-41-4) | |
|--------------------------------|---|
| NOAEL (oral, rat, 90 days) | 75 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

| N-methyl-2-pyrrolidone (872-50-4) | |
|--|--|
| LOAEC (inhalation, rat, dust/mist/fume, 90 days) | 1 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study) |
| NOAEL (dermal, rat/rabbit, 90 days) | 826 mg/kg body weight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study) |
| NOAEC (inhalation, rat, dust/mist/fume, 90 days) | 0.5 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study) |

Aspiration hazard : May be fatal if swallowed and enters airways.

Viscosity, kinematic : No data available

Symptoms/effects : May cause drowsiness or dizziness.

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

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : Risk of lung edema.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

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| Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1) | |
|---|---|
| LC50 fish 1 | 5540 mg/l (EU Method C.1, 96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Nominal concentration) |
| LOEC (chronic) | > 79 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC (chronic) | >= 79 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| Propane (74-98-6) | |
| LC50 fish 1 | 24 mg/l (96 h, Pisces, Literature study) |
| EC50 Daphnia 1 | 7 mg/l (48 h, Daphnia magna, Literature study) |
| LC50 fish 2 | 49.9 mg/l (96 h, Pisces, Fresh water, QSAR) |
| Methyl ethyl ketone (78-93-3) | |
| LC50 fish 1 | 2993 mg/l Test organisms (species): Pimephales promelas |
| EC50 Daphnia 1 | 308 mg/l Test organisms (species): Daphnia magna |
| ErC50 (algae) | 1972 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |
| NOEC chronic algae | 93 mg/l |
| Xylene (1330-20-7) | |
| LC50 fish 1 | 3.3 mg/l |
| EC50 Daphnia 1 | 7.4 mg/l |
| ErC50 (algae) | 4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |
| NOEC chronic fish | > 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d' |
| methyl propyl ketone (107-87-9) | |
| LC50 fish 1 | 1210 mg/l |
| EC50 Daphnia 1 | > 110 mg/l Test organisms (species): Daphnia magna |
| ErC50 (algae) | > 150 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |
| Ethylbenzene (100-41-4) | |
| LC50 fish 1 | 3.7 mg/l |
| EC50 Daphnia 1 | 0.42 mg/l |
| LOEC (chronic) | 1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d' |
| NOEC (chronic) | 0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d' |
| NOEC chronic crustacea | 0.956 mg/l |
| N-methyl-2-pyrrolidone (872-50-4) | |
| LC50 fish 1 | > 500 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |
| EC50 Daphnia 1 | 1107 mg/l (EPA 660/3 - 75/009, 96 h, Palaemonetes vulgaris, Static system, Salt water, Experimental value) |
| EC50 Daphnia 2 | > 1000 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value) |
| LOEC (chronic) | 25 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC (chronic) | 12.5 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic crustacea | 12.5 mg/l |
| Cobalt 2-ethylhexanoate (136-52-7) | |
| LC50 fish 1 | 1.512 mg/l (ASTM, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across) |
| EC50 other aquatic organisms 1 | 1703 mg/kg dwt (ASTM, 28 day(s), Tubifex tubifex, Semi-static system, Fresh water, Read-across, Reproduction) |
| LC50 fish 2 | 54.1 mg/l (ASTM, 96 h, Pimephales promelas, Flow-through system, Fresh water, Read-across) |
| ErC50 (algae) | 144 µg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, GLP) |

12.2. Persistence and degradability

| Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1) | |
|---|--|
| Persistence and degradability | Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water. |

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| Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1) | |
|---|--|
| Biochemical oxygen demand (BOD) | 1.43 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.92 g O ₂ /g substance |
| ThOD | 2.2 g O ₂ /g substance |
| BOD (% of ThOD) | 0.872 (20 day(s), Literature study) |
| Propane (74-98-6) | |
| Persistence and degradability | Readily biodegradable in water. |
| Methyl ethyl ketone (78-93-3) | |
| Persistence and degradability | Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 2.03 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 2.31 g O ₂ /g substance |
| ThOD | 2.44 g O ₂ /g substance |
| Xylene (1330-20-7) | |
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| methyl propyl ketone (107-87-9) | |
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| Ethylbenzene (100-41-4) | |
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 1.44 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 2.1 g O ₂ /g substance |
| ThOD | 3.17 g O ₂ /g substance |
| N-methyl-2-pyrrolidone (872-50-4) | |
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 1.07 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.56 g O ₂ /g substance |
| ThOD | 1.9 g O ₂ /g substance |
| BOD (% of ThOD) | 0.56 |
| Cobalt 2-ethylhexanoate (136-52-7) | |
| Persistence and degradability | Readily biodegradable in water. |

12.3. Bioaccumulative potential

| Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1) | |
|---|--|
| BCF fish 1 | 0.69 (Pisces) |
| BCF other aquatic organisms 1 | 3 (BCFWIN, Calculated value) |
| Log Pow | -0.24 (Test data) |
| Bioaccumulative potential | Not bioaccumulative. |
| Propane (74-98-6) | |
| BCF fish 1 | 9 - 25 (Pisces, QSAR) |
| Log Pow | 1.09 - 2.8 (Experimental value, 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
| Methyl ethyl ketone (78-93-3) | |
| Log Pow | 0.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 40 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
| Xylene (1330-20-7) | |
| BCF fish 1 | 7.2 - 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across) |
| Log Pow | 3.2 (Read-across, 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| methyl propyl ketone (107-87-9) | |
| Log Pow | 0.857 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

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| Ethylbenzene (100-41-4) | |
|---|---|
| BCF fish 1 | 1 - 2.4 (Other, 6 week(s), Oncorhynchus kisutch, Flow-through system, Salt water, Experimental value) |
| Log Pow | 3.6 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| N-methyl-2-pyrrolidone (872-50-4) | |
| BCF other aquatic organisms 1 | 3 (Calculated value) |
| Bioaccumulative potential | Not bioaccumulative. |
| Cobalt 2-ethylhexanoate (136-52-7) | |
| BCF fish 1 | 1.2 (131 day(s), Seriola quinqueradiata, Static system, Salt water, Read-across, Fresh weight) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

12.4. Mobility in soil

| Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1) | |
|---|---|
| Surface tension | 0.0237 N/m |
| Ecology - soil | No (test)data on mobility of the substance available. |
| Propane (74-98-6) | |
| Surface tension | 0.016 N/m (-47 °C) |
| Ecology - soil | Not applicable (gas). |
| Methyl ethyl ketone (78-93-3) | |
| Surface tension | 0.024 N/m (20 °C) |
| Log Koc | 1.53 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. Slightly harmful to plants. |
| Xylene (1330-20-7) | |
| Surface tension | 28.01 - 29.76 mN/m (25 °C) |
| Log Koc | 2.73 (log Koc, Equivalent or similar to OECD 121, Read-across) |
| Ecology - soil | Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation. |
| methyl propyl ketone (107-87-9) | |
| Surface tension | 23.87 mN/m (20 °C, 100 %, EU Method A.5: Surface tension) |
| Log Koc | 0.915 - 1.624 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Highly mobile in soil. |
| Ethylbenzene (100-41-4) | |
| Surface tension | 0.071 N/m (23 °C, 0.0582 g/l, EU Method A.5: Surface tension) |
| Log Koc | 2.71 (log Koc, PCKOCWIN v1.66, QSAR) |
| Ecology - soil | Low potential for adsorption in soil. Toxic to soil organisms. |
| N-methyl-2-pyrrolidone (872-50-4) | |
| Surface tension | 0.407 N/m |
| Log Koc | 1.32 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. |
| Cobalt 2-ethylhexanoate (136-52-7) | |
| Surface tension | 0.064 N/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions) |
| Ecology - soil | No (test)data on mobility of the substance available. |

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.

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SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1950 Aerosols, 2.1
UN-No.(DOT) : UN1950
Proper Shipping Name (DOT) : Aerosols
Class (DOT) : 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115
Hazard labels (DOT) : 2.1 - Flammable gas



DOT Packaging Non Bulk (49 CFR 173.xxx) : None
DOT Packaging Bulk (49 CFR 173.xxx) : None
DOT Special Provisions (49 CFR 172.102) : N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.
DOT Packaging Exceptions (49 CFR 173.xxx) : 306
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other : 25 - Protected from sources of heat, 87 - Stow "separated from" Class 1 (explosives) except Division 14, 126 - Segregation same as for Class 9, miscellaneous hazardous materials
Emergency Response Guide (ERG) Number : 126
Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport document description : UN1950 AEROSOLS, 2.1
UN-No. (TDG) : UN1950
Proper Shipping Name (Transportation of Dangerous Goods) : AEROSOLS
TDG Primary Hazard Classes : 2.1 - Class 2.1 - Flammable Gas.
TDG Special Provisions : 80 - Despite section 1.17 of Part 1, Coming into Force, Repeal, Interpretation, General Provisions and Special Cases, a person must not offer for transport or transport these dangerous goods unless they are in a means of containment that is in compliance with section 5.11 of Part 5, Means of Containment, except that the requirement for aerosol containers to be tightly packed in a wood, fibreboard or plastic box does not apply to a user or purchaser who transports no more than six aerosol containers. For a similar rule respecting aerosol containers, see subparagraph 1.15(1)(a)(i) of Part 1, Coming into Force, Repeal, Interpretation, General Provisions and Special Cases. SOR/2012-245, 107 - (1) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2, (Classification), do not apply to the handling, offering for transport or transporting of UN1950, AEROSOLS, and UN2037, GAS CARTRIDGES, that contain dangerous goods included in Class 2.1 or Class 2.2 and that are transported on a road vehicle, a railway vehicle or a ship on a domestic voyage, if the aerosols or gas cartridges have a capacity less than or equal to 50 mL. (2) Subsection (1) does not apply to self-defence spray. SOR/2014-306
Explosive Limit and Limited Quantity Index : 1 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 75 L

Transport by sea

Transport document description (IMDG) : UN 1950 AEROSOLS, 2.1
UN-No. (IMDG) : 1950
Proper Shipping Name (IMDG) : AEROSOLS
Class (IMDG) : 2 - Gases

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Air transport

Transport document description (IATA) : UN 1950 Aerosols, flammable, 2.1
UN-No. (IATA) : 1950
Proper Shipping Name (IATA) : Aerosols, flammable
Class (IATA) : 2

SECTION 15: Regulatory information

15.1. US Federal regulations

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

Contains chemical(s) subject to TSCA 12b export notification if product is shipped outside the U.S

| | | |
|------------------------|------------------|------------|
| N-methyl-2-pyrrolidone | CAS-No. 872-50-4 | 0.1 - 0.3% |
|------------------------|------------------|------------|

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

| | | |
|--------|-------------------|---------|
| Xylene | CAS-No. 1330-20-7 | 5 - 10% |
|--------|-------------------|---------|

Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1)

| | |
|-----------|---------|
| CERCLA RQ | 5000 lb |
|-----------|---------|

Methyl ethyl ketone (78-93-3)

Listed on EPA Hazardous Air Pollutant (HAPS)

| | |
|-----------|---------|
| CERCLA RQ | 5000 lb |
|-----------|---------|

Xylene (1330-20-7)

Listed on EPA Hazardous Air Pollutant (HAPS)

| | |
|-----------|--------|
| CERCLA RQ | 100 lb |
|-----------|--------|

Ethylbenzene (100-41-4)

Listed on EPA Hazardous Air Pollutant (HAPS)

| | |
|-----------|---------|
| CERCLA RQ | 1000 lb |
|-----------|---------|

N-methyl-2-pyrrolidone (872-50-4)

| | |
|--------------------------|---|
| EPA TSCA Regulatory Flag | R - R - indicates a substance that is the subject of a TSCA section 6 risk management rule. |
|--------------------------|---|

15.2. International regulations

CANADA

Acetone, 2-propanone, Dimethyl ketone, Ketone propane, beta-Ketopropane. (67-64-1)

Listed on the Canadian DSL (Domestic Substances List)

Propane (74-98-6)

Listed on the Canadian DSL (Domestic Substances List)

Methyl ethyl ketone (78-93-3)

Listed on the Canadian DSL (Domestic Substances List)

Xylene (1330-20-7)

Listed on the Canadian DSL (Domestic Substances List)

methyl propyl ketone (107-87-9)

Listed on the Canadian DSL (Domestic Substances List)

Ethylbenzene (100-41-4)

Listed on the Canadian DSL (Domestic Substances List)

N-methyl-2-pyrrolidone (872-50-4)

Listed on the Canadian DSL (Domestic Substances List)

Cobalt 2-ethylhexanoate (136-52-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

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National regulations

Ethylbenzene (100-41-4)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

 **WARNING:** This product can expose you to Methyl isobutyl ketone (MIBK), 2-methyl-4-pentanone, 2-methylproyl methyl ketone, 2-pentanone, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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Full text of H-phrases:

| | |
|------|---|
| H220 | Extremely flammable gas |
| H222 | Extremely flammable aerosol |
| H225 | Highly flammable liquid and vapour |
| H226 | Flammable liquid and vapour |
| H227 | Combustible liquid |
| H280 | Contains gas under pressure; may explode if heated |
| H304 | May be fatal if swallowed and enters airways |
| H312 | Harmful in contact with skin |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H335 | May cause respiratory irritation |
| H336 | May cause drowsiness or dizziness |
| H360 | May damage fertility or the unborn child |
| H373 | May cause damage to organs through prolonged or repeated exposure |

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.