25-0092 Horne, T.

From: Matt Todaro <matt@1-800-optisource.com>
Sent: Friday, July 11, 2025 4:46 PM
To: PHMSA HM InfoCenter <PHMSAHMInfoCenter@dot.gov>; INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: Interpretation Request
Importance: High

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CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hello,

We are looking to ship our product in the attached SDS and are looking for clarification on the regulations for shipping hazmat. We pack this chemical in 16oz bottles and then pack those bottles 12 per case. Each case weighs just under 12 pounds so each individual case qualifies as limited quantity. We are looking to ship around 70-80 cases per pallet via ground freight. The question is whether or not this would still be considered limited quantity if shipping 70-80 cases onto a pallet. If it is still considered limited quantity then I know they would not need to be packed in UN rated boxes. If it is no longer considered limited quantity, would we then have to pack them in UN rated boxes?

We are working with a contract filler that has recently become hazmat certified and they are extremely cautious about shipping hazmat to ensure that they are staying with regulations. They have advised that shipping as I described above would no longer be considered limited quantity due to the amount be shipped and would require UN rated boxes as well. I tried to read through the regulations as best I could, did not see anything that talked about limitations on the amount of limited quantity that could be sent via ground freight. I saw a section for air freight, but not for ground freight. If we could get formal guidance on this request then it would serve as sufficient backup for our contract filler to proceed.

Below for quick reference is the Transport Info from the attached SDS

SECTION 14: Transport information

| Department of Transportation (DOT) In accordance with DOT | | |
|--|--|-----|
| Transport document description (DOT) | : UN1993 Flammable liquids, n.o.s. (ethanol, ethyl acetate), 3, II | |
| UN-No. (DOT) | : UN1993 | |
| Proper Shipping Name (DOT) | : Flammable liquids, n.o.s. (ethanol, ethyl acetate) | |
| Class (DOT) | : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120 | |
| Packing group (DOT) | : II - Medium Danger | |
| Hazard labels (DOT) | : 3 - Flammable liquid | |
| | | |
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : 202 | |
| DOT Packaging Bulk (49 CFR 173.xxx) | : 242 | |
| 05/05/2025 | EN (English US) | 8/1 |

Thank you

Matt Todaro Purchasing Agent



40 Sawgrass Drive Bellport, NY 11713 Phone: 631-924-8360 x165 Email: Matt@1-800-OptiSource.com | E-Catalog OptiSource, an EssilorLuxottica Company www.1-800-OptiSource.com



Safety Data Sheet

Issue date: 05/05/2025 Version 1.0 **SECTION 1: Identification** Identification 1.1. Product form : Mixture Product name : OptiSource ALL OFF Recommended use and restrictions on use 1.2. Recommended use : Ink Remover 1.3. Supplier OptiSource 40 Sawgrass Drive Bellport, NY 11713 1.4. **Emergency telephone number** Phone:(631) 924-8360 Fax. (631) 924-8375 Emergency number INFOTRAC 1-352-323-3500 (International) 1-800-535-5053 (North America) SECTION 2: Hazard(s) identification **Classification of the substance or mixture** 2.1. **GHS US classification** Flammable liquids Category 2 H225 Highly flammable liquid and vapor Serious eye damage/eye irritation Category 2 H319 Causes serious eye irritation Carcinogenicity Category 2 H351 Suspected of causing cancer Specific target organ toxicity - Single exposure, Category 3, Narcosis H336 May cause drowsiness or dizziness Full text of H statements : see section 16 GHS Label elements, including precautionary statements 2.2. **GHS US labeling** Hazard pictograms (GHS US) Signal word (GHS US) : Danger Hazard statements (GHS US) : H225 - Highly flammable liquid and vapor H319 - Causes serious eye irritation H336 - May cause drowsiness or dizziness H351 - Suspected of causing cancer 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. P233 - Keep container tightly closed. P240 - Ground/Bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/lighting equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. P264 - Wash hands, forearms and face thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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. P337+P313 - If eye irritation persists: Get medical advice/attention.

- P370+P378 In case of fire: Use media other than water to extinguish.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up. P501 - Dispose of contents/container to hazardous or special was

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 | % |
|------------------------|---------------------|-------|
| ethanol | (CAS-No.) 64-17-5 | 55-65 |
| Ethyl Acetate | (CAS-No.) 141-78-6 | 20-30 |
| Methyl IsoButyl Ketone | (CAS-No.) 108-10-1 | 0-2 |
| propyl acetate | (CAS-No.) 109-60-4 | 0-5 |
| 2-propanol | (CAS-No.) 67-63-0 | 0-5 |
| Water | (CAS-No.) 7732-18-5 | 0-5 |

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 | : IF exposed or concerned: Get medical advice/attention. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. |
| 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 | : Call a poison center/doctor/physician if you feel unwell. |
| 4.2. Most important symptoms and effect | ts (acute and delayed) |
| Symptoms/effects | : May cause drowsiness or dizziness. |
| Symptoms/effects after inhalation | : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : Eye irritation. |
| Symptoms/effects after ingestion | : None under normal conditions. |
| 4.3. Immediate medical attention and sp | ecial treatment, if necessary |
| Treat symptomatically. | |
| SECTION 5: Fire-fighting measures | |
| 5.1. Suitable (and unsuitable) extinguish | ing media |
| Suitable extinguishing media | : Water spray. Dry powder. Foam. Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |
| 5.2. Specific hazards arising from the ch | iemical |
| Fire hazard | : Highly flammable liquid and vapor. |
| Explosion hazard | : No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |
| 5.3. Special protective equipment and p | recautions for fire-fighters |
| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |

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| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--|--|
| SECTION 6: Accidental release meas | |
| 6.1. Personal precautions, protective equ | uipment and emergency procedures |
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
| 6.1.1. For non-emergency personnel | |
| Protective equipment | : Wear recommended personal protective equipment. |
| Emergency procedures | : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. |
| 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". |
| Emergency procedures | : Evacuate unnecessary personnel. Stop leak if safe to do so. |
| 6.2. Environmental precautions | |
| Avoid release to the environment. | |
| 6.3. Methods and material for containme | nt and cleaning up |
| For containment | : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| 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 | |
| Additional hazards when processed | : Not expected to present a significant hazard under anticipated conditions of normal use. |
| Precautions for safe handling | : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| 7.2. Conditions for safe storage, includin | ng any incompatibilities |
| Technical measures | : Ground/bond container and receiving equipment. |
| Storage conditions | : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. |
| Packaging materials | : Store always product in container of same material as original container. |
| | |

SECTION 8: Exposure controls/personal protection

| Optisource Ink Remover 2 | | | | |
|---------------------------|-----------|---|----------------------|-------------------------|
| Name | CAS | OSHA/ACGIH – TWA | OSHA/ACGIH – STEL | OSHA/ACGIH – Ceiling |
| ethanol | 64-17-5 | 1900 mg/m ³ ; 1000 ppm; | 1000 ppm | Not applicable |
| Ethyl Acetate | 141-78-6 | 1400 mg/m ³ ; 400 ppm; 400 ppm | Not applicable | Not applicable |
| Methyl IsoButyl Ketone | 108-10-1 | 410 mg/m ³ ; 100 ppm; 20 ppm | 75 ppm | Not applicable |
| propyl acetate | 109-60-4 | 840 mg/m ³ ; 200 ppm; 100 ppm | 150 ppm | Not applicable |
| 2-propanol | 67-63-0 | 980 mg/m ³ ; 400 ppm; 200 ppm | 400 ppm | Not applicable |
| Water | 7732-18-5 | Not applicable | Not applicable | Not applicable |

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8.2. Appropriate engineering controls

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

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties 9.1. Information on basic physical and chemical properties Physical state : Liquid : Mixture contains one or more component(s) which have the following color(s): Color Colourless There may be no odor warning properties, odor is subjective and inadequate to warn of Odor : overexposure. Mixture contains one or more component(s) which have the following odor: Alcohol odour Pleasant odour Fruity odour Sweet odour Camphor odour Mild odour Stuffy odour Odor threshold No data available pН : No data available Not applicable Melting point · Freezing point : No data available Boiling point 77 °C | 170.6 °F [Lowest Component] : -4 °C | 24.8 °F [Lowest Component] Flash point Relative evaporation rate (butyl acetate=1) : No data available No data available Flammability · : No data available Vapor pressure Relative vapor density at 20°C : No data available Relative density : No data available Density : 6.837 lb/gal [Calculated] Solubility : No data available Partition coefficient n-octanol/water (Log Pow) : No data available Auto-ignition temperature : 363 °C | 685.4 °F [Lowest Component] Decomposition temperature No data available · No data availableViscosity, kinematic : No data available Viscosity, dynamic : No data available **Explosion** limits : No data available

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| Explosive properties | | : No data available | | |
|--|--|--|--|---|
| Dxidizing properties | | : No data available | | |
| 0.2. Other inform | mation | | | |
| No additional informat | ion available | | | |
| SECTION 10: Sta | bility and read | ctivity | | |
| I0.1. Reactivity | | | | |
| Highly flammable liqui | d and vapor. | | | |
| I0.2. Chemical s | tability | | | |
| | | | | |
| Stable under normal c | | 4 | | |
| | of hazardous read | rmal conditions of use. | | |
| 3 | | inial conditions of use. | | |
| 10.4. Conditions | | o flames, no sparks. Eliminate all sou | roop of ignition | |
| | | | | |
| 10.5. Incompatib No additional informat | | | | |
| | | re du ete | | |
| | decomposition pi | roducts use, hazardous decomposition produ | icts should not be produced | |
| | Ŭ | · · · | | |
| SECTION 11: To: | | | | |
| | on toxicological | | | |
| Acute toxicity (oral) | | . Not algoritized | | |
| , | | : Not classified | | |
| Acute toxicity (dermal) | | : Not classified | | |
| Acute toxicity (dermal) | | | | |
| , | | : Not classified | LD ₅₀ Dermal | LD ₅₀ Inhalation |
| Acute toxicity (dermal) Acute toxicity (inhalation | on) | Not classified Not classified Not classified LD₅₀ Oral 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 | LD₅o Dermal Not applicable | 125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 |
| Acute toxicity (dermal) Acute toxicity (inhalation Name | on) CAS | : Not classified : Not classified id Not classified ID₅0 Oral 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, | | 125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental |
| Acute toxicity (dermal) Acute toxicity (inhalation Name ethanol | on) CAS 64-17-5 | Not classified Not classified Not classified 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) 10200 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Female, Experimental | Not applicable | 125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |
| Acute toxicity (dermal) Acute toxicity (inhalati Name ethanol Ethyl Acetate Methyl IsoButyl | on) CAS 64-17-5 141-78-6 | Not classified Not classified Not classified 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) 10200 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral) 2080 mg/kg (Equivalent or similar to OECD 401, Rat, | Not applicable Not applicable ≥ 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, | 125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) Not applicable 11.6 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male, Experimental value, Inhalation |
| Acute toxicity (dermal) Acute toxicity (inhalati Name ethanol Ethyl Acetate Methyl IsoButyl Ketone | CAS 64-17-5 141-78-6 108-10-1 | Not classified Not classified Not classified 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) 10200 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral) 2080 mg/kg (Equivalent or similar to OECD 401, Rat, Experimental value, Oral) 8700 mg/kg body weight (Rat, Male, Experimental value, Oral, | Not applicable Not applicable ≥ 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) | 125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) Not applicable 11.6 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male, Experimental value, Inhalation (vapours)) 32 mg/l air (4 h, Rat, Experimental value, Inhalation value, Inhalation value, Inhalation |
| Acute toxicity (dermal) Acute toxicity (inhalati Name ethanol Ethyl Acetate Methyl IsoButyl Ketone | CAS 64-17-5 141-78-6 108-10-1 109-60-4 | Not classified Not classified Not classified 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) 10200 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral) 2080 mg/kg (Equivalent or similar to OECD 401, Rat, Experimental value, Oral) 8700 mg/kg body weight (Rat, Male, Experimental value, Oral, 14 day(s)) 5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, | Not applicable Not applicable ≥ 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) Not applicable | 125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) Not applicable 11.6 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male, Experimental value, Inhalation (vapours)) 32 mg/l air (4 h, Rat, Experimental value, Inhalation (vapours)) 32 mg/l air (4 h, Rat, Experimental value, Inhalation (vapours), 14 day(s)) ; > 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s) |
| Acute toxicity (dermal) Acute toxicity (inhalati Name ethanol Ethyl Acetate Methyl IsoButyl Ketone propyl acetate 2-propanol | CAS 64-17-5 141-78-6 108-10-1 109-60-4 67-63-0 7732-18-5 | Not classified Not classified Not classified 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) 10200 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral) 2080 mg/kg (Equivalent or similar to OECD 401, Rat, Experimental value, Oral) 8700 mg/kg body weight (Rat, Male, Experimental value, Oral, 14 day(s)) 5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 14 day(s)) | Not applicable Not applicable ≥ 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) Not applicable Not applicable | 125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) Not applicable 11.6 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male, Experimental value, Inhalation (vapours)) 32 mg/l air (4 h, Rat, Experimental value, Inhalation (vapours)) 32 mg/l air (4 h, Rat, Experimental value, Inhalation (vapours)) ; > 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |
| Acute toxicity (dermal) Acute toxicity (inhalati Name ethanol Ethyl Acetate Methyl IsoButyl Ketone propyl acetate 2-propanol Water | CAS 64-17-5 141-78-6 108-10-1 109-60-4 67-63-0 7732-18-5 | Not classified Not classified Not classified 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) 10200 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral) 2080 mg/kg (Equivalent or similar to OECD 401, Rat, Experimental value, Oral) 8700 mg/kg body weight (Rat, Male, Experimental value, Oral, 14 day(s)) 5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 14 day(s)) 5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 14 day(s)) Not applicable | Not applicable Not applicable ≥ 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) Not applicable Not applicable Not applicable | 125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) Not applicable 11.6 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male, Experimental value, Inhalation (vapours)) 32 mg/l air (4 h, Rat, Experimental value, Inhalation (vapours)) 32 mg/l air (4 h, Rat, Experimental value, Inhalation (vapours)) ; > 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |
| Acute toxicity (dermal) Acute toxicity (inhalati Name ethanol Ethyl Acetate Methyl IsoButyl Ketone propyl acetate 2-propanol Water Skin corrosion/irritation | CAS 64-17-5 141-78-6 108-10-1 109-60-4 67-63-0 7732-18-5 n rritation nsitization | Not classified Not classified Not classified 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) 10200 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral) 2080 mg/kg (Equivalent or similar to OECD 401, Rat, Experimental value, Oral) 8700 mg/kg body weight (Rat, Male, Experimental value, Oral, 14 day(s)) 5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 14 day(s)) 5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 14 day(s)) Not applicable : Not classified | Not applicable Not applicable ≥ 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) Not applicable Not applicable Not applicable | 125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) Not applicable 11.6 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male, Experimental value, Inhalation (vapours)) 32 mg/l air (4 h, Rat, Experimental value, Inhalation (vapours)) 32 mg/l air (4 h, Rat, Experimental value, Inhalation (vapours)) ; > 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |

Reproductive toxicity

: Not classified

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| STOT-single exposure | : May cause drowsiness or dizziness. |
|---|---|
| Ethyl Acetate (141-78-6) | |
| STOT-single exposure | May cause drowsiness or dizziness. |
| Methyl IsoButyl Ketone (108-10-1) | |
| STOT-single exposure | May cause respiratory irritation. |
| propyl acetate (109-60-4) | |
| STOT-single exposure | May cause drowsiness or dizziness. |
| 2-propanol (67-63-0) | |
| STOT-single exposure | May cause drowsiness or dizziness. |
| STOT-repeated exposure | : Not classified |
| ethanol (64-17-5) | |
| NOAEL (subchronic,oral,animal/male,90 days) | < 9700 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents) |
| NOAEL (subchronic,oral,animal/female,90 days) | > 9400 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents) |
| Ethyl Acetate (141-78-6) | |
| LOAEL (oral,rat,90 days) | 3600 mg/kg body weight Animal: rat, Guideline: EPA OTS 795.2600 (Subchronic Oral Toxicity Test) |
| NOAEL (oral,rat,90 days) | 900 mg/kg body weight Animal: rat, Guideline: EPA OTS 795.2600 (Subchronic Oral Toxicity Test) |
| Aspiration hazard | : Not classified |
| Viscosity, kinematic | : No data available |
| Symptoms/effects | : May cause drowsiness or dizziness. |
| Symptoms/effects after inhalation | : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : Eye irritation. |
| Symptoms/effects after ingestion | : None under normal conditions. |

| SECTION 12: Ecological information |
|------------------------------------|
| |

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

| Name | CAS | LD ₅₀ Fish | EC ₅₀ Crustacae | ErC ₅₀ Fish |
|---------------------------|-----------|--|---|---|
| ethanol | 64-17-5 | Not applicable | Not applicable | Not applicable |
| Ethyl Acetate | 141-78-6 | Not applicable | 154 mg/l (48 h, Daphnia magna, Literature) | Not applicable |
| Methyl IsoButyl Ketone | 108-10-1 | Not applicable | > 200 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration) | Not applicable |
| propyl acetate | 109-60-4 | Not applicable | 92 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Measured concentration) | 672 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Measured concentration) |
| 2-propanol | 67-63-0 | ; 9640 mg/l Test organisms (species): Pimephales promelas | Not applicable | Not applicable |
| Water | 7732-18-5 | Not applicable | Not applicable | Not applicable |

^{12.1.} Toxicity Ecology - general

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| ethanol (64-17-5) | |
|-----------------------------------|--|
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.8 – 0.967 g O₂/g substance |
| Chemical oxygen demand (COD) | 1.7 g O₂/g substance |
| ThOD | 2.1 g O₂/g substance |
| BOD (% of ThOD) | 0.43 |
| Ethyl Acetate (141-78-6) | |
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.293 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.69 g O₂/g substance |
| ThOD | 1.82 g O₂/g substance |
| Methyl IsoButyl Ketone (108-10-1) | |
| Persistence and degradability | Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 2.06 g O₂/g substance |
| Chemical oxygen demand (COD) | 2.16 g O₂/g substance |
| ThOD | 2.72 g O₂/g substance |
| propyl acetate (109-60-4) | |
| Persistence and degradability | Readily biodegradable in water. |
| ThOD | 2.04 g O₂/g substance |
| 2-propanol (67-63-0) | |
| Persistence and degradability | Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 1.19 g O₂/g substance |
| Chemical oxygen demand (COD) | 2.23 g O₂/g substance |
| ThOD | 2.4 g O₂/g substance |

12.3. Bioaccumulative potential

| ethanol (64-17-5) | |
|---|---|
| BCF - Fish [1] | 1 (Other, 72 h, Cyprinus carpio, Static system, Fresh water, Read-across) |
| Partition coefficient n-octanol/water (Log Pow) | -0.31 (Experimental value) |
| Bioaccumulative potential | Not bioaccumulative. |
| Ethyl Acetate (141-78-6) | |
| BCF - Fish [1] | 30 (3 day(s), Leuciscus idus, Static system, Experimental value) |
| Partition coefficient n-octanol/water (Log Pow) | 0.68 (Experimental value, EPA OPPTS 830.7560, 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |
| Methyl IsoButyl Ketone (108-10-1) | |
| Partition coefficient n-octanol/water (Log Pow) | 1.9 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
| propyl acetate (109-60-4) | |
| Partition coefficient n-octanol/water (Log Pow) | 1.4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 $^{\circ}$ C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
| 2-propanol (67-63-0) | |
| Partition coefficient n-octanol/water (Log Pow) | 0.05 (Weight of evidence approach, 25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

12.4. Mobility in soil

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| ethanol (64-17-5) | |
|---|--|
| Surface tension | 22.31 mN/m (20 °C, 100 %) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0.2 (log Koc, Experimental value) |
| Ecology - soil | Highly mobile in soil. |
| Ethyl Acetate (141-78-6) | |
| Surface tension | 0.024 N/m (20 °C) |
| Ecology - soil | Low potential for adsorption in soil. |
| Methyl IsoButyl Ketone (108-10-1) | |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 2.008 (log Koc, Weight of evidence, Calculated value) |
| Ecology - soil | Low potential for adsorption in soil. |
| propyl acetate (109-60-4) | |
| Surface tension | 67.5 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Highly mobile in soil. |
| 2-propanol (67-63-0) | |
| Surface tension | 0.021 N/m (25 °C) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0.185 – 0.541 (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 consideration | 15 |
|--|--|
| 13.1. Disposal methods | |
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations. |
| Additional information | : Flammable vapors may accumulate in the container. Do not re-use empty containers. |
| SECTION 14: Transport information | |
| Department of Transportation (DOT) | |
| In accordance with DOT | |
| Transport document description (DOT) | : UN1993 Flammable liquids, n.o.s. (ethanol, ethyl acetate), 3, II |
| UN-No. (DOT) | : UN1993 |
| Proper Shipping Name (DOT) | : Flammable liquids, n.o.s. (ethanol, ethyl acetate) |
| Class (DOT) | : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120 |
| Packing group (DOT) | : II - Medium Danger |
| Hazard labels (DOT) | : 3 - Flammable liquid |
| | a second at light and a second at light |
| 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) | : 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 |
| | TP1 - The maximum degree of filling must not exceed the degree of filling determined by the |
| | following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. |
| | TP8 - A portable tank having a minimum test pressure of 1.5 bar (150 kPa) may be used when |
| | the flash point of the hazardous material transported is greater than 0 C (32 F). TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used |
| | provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous |
| | material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : 150 |
| DOT Quantity Limitations Passenger aircraft/rail | : 5L |
| (49 CFR 173.27) | |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 60 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. |
| Emergency Response Guide (ERG) Number | : 128 |
| Other information | : No supplementary information available. |
| Transportation of Dangerous Goods | |
| Transport document description (TDG) | : UN1993 FLAMMABLE LIQUID, N.O.S., 3, II |
| UN-No. (TDG) | : UN1993 |
| Proper Shipping Name (TDG) | : FLAMMABLE LIQUID, N.O.S. |
| TDG Primary Hazard Classes | : 3 - Class 3 - Flammable Liquids |
| Packing group (TDG) | : II - Medium Danger |
| TDG Special Provisions | : 16 - 1) The technical name of the most dangerous substance related to the primary class must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(i)(A) of Part 3, Documentation. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4, Dangerous Goods Safety |
| | Marks. |
| | 2) subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the |
| | disclosure of the technical: a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; c) UN3140, ALKALOID |
| | SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example |
| | in Canada is the "Food and Drugs Act",150 - An emergency response assistance plan (ERAP) is required for these dangerous goods under subsection 7.1(6) of Part 7 (Emergency Response |
| | Assistance Plan). SOR/2015-100 UN1170, UN1202, UN1203, UN1267, UN1268, UN1863, UN1987, UN1993, UN3295, UN3475, UN3494 SOR/2015-100 |
| Explosive Limit and Limited Quantity Index | : 1L |
| Passenger Carrying Road Vehicle or Passenger | |
| Carrying Railway Vehicle Index | |
| Transport by sea | |
| UN-No. (IMDG) | : 1993 |
| Proper Shipping Name (IMDG) | : FLAMMABLE LIQUID, N.O.S. |
| Class (IMDG) | : 3 - Flammable liquids |
| Packing group (IMDG) Limited quantities (IMDG) | : II - substances presenting medium danger : 1 L |
| | . 16 |
| Air transport | |
| UN-No. (IATA) | : 1993 |
| 05/05/2025 | EN (English US) 9/11 |

Safety Data Sheet

| Proper Shipping Name (IATA) | : Flammable liquid, n.o.s. |
|-----------------------------|----------------------------|
| Class (IATA) | : 3 - Flammable Liquids |
| Packing group (IATA) | : II - Medium danger |

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

| ethanol | CAS-No. 64-17-5 | 55-65% |
|------------------------|-------------------|--------|
| Ethyl Acetate | CAS-No. 141-78-6 | 20-30% |
| Methyl IsoButyl Ketone | CAS-No. 108-10-1 | 0-2% |
| propyl acetate | CAS-No. 109-60-4 | 0-5% |
| 2-propanol | CAS-No. 67-63-0 | 0-5% |
| Water | CAS-No. 7732-18-5 | 0-5% |

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.

| | CAS-No. 108-10-1 | 0-2% | |
|--|------------------|-----------------|--|
| | CAS-No. 67-63-0 | 0-5% | |
| Ethyl Acetate (141-78-6) | | | |
| 5000 lb | | | |
| Methyl IsoButyl Ketone (108-10-1) | | | |
| Listed on EPA Hazardous Air Pollutant (HAPS) | | | |
| 5000 lb | | | |
| | | CAS-No. 67-63-0 | |

15.2. International regulations

CANADA

| CANADA | |
|---|--|
| ethanol (64-17-5) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| Ethyl Acetate (141-78-6) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| Methyl IsoButyl Ketone (108-10-1) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| propyl acetate (109-60-4) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| 2-propanol (67-63-0) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| Water (7732-18-5) | |
| Listed on the Canadian DSL (Domestic Substances List) | |
| Ell-Pequiations | |

EU-Regulations

No additional information available

National regulations

| ethanol (64-17-5) | |
|--|--|
| Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active | |
| Ethyl Acetate (141-78-6) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances) | |
| Methyl IsoButyl Ketone (108-10-1) | |
| Listed on IARC (International Agency for Research on Cancer) | |
| propyl acetate (109-60-4) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances) | |

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2-propanol (67-63-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

This product can expose you to chemicals including Methyl IsoButyl Ketone, 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.

| Component | State or local regulations |
|----------------------------------|--|
| ethanol(64-17-5) | U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List |
| Ethyl Acetate(141-78-6) | U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List |
| Methyl IsoButyl Ketone(108-10-1) | U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List |
| propyl acetate(109-60-4) | U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List |
| 2-propanol(67-63-0) | U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List |

SECTION 16: Other information

Full text of hazard classes and H-statements:

| H225 | Highly flammable liquid and vapor |
|------|---|
| H312 | Harmful in contact with skin |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H335 | May cause respiratory irritation |
| H336 | May cause drowsiness or dizziness |
| H351 | Suspected of causing cancer |
| H402 | Harmful to aquatic life |
| H412 | Harmful to aquatic life with long lasting effects |

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.