

Material Name: MEK/Acetone Blend

Safety Data Sheet

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name MEK/Acetone Blend **Product Code** Not available. **Product Use** Industrial solvent. If this product is used in combination with other products, refer to the Safety Data Sheet for those products. **Restrictions on Use** None known Details of the supplier of the safety data sheet Emerald Services, Inc. 1825 Alexander Avenue Tacoma, WA 98421 Phone: 206-832-3225 Emergency Phone #: (800) 424-9300 (CHEMTREC - #7619) **Issue Date** February 28, 2019 Supersedes Issue Date New Issue SDS **Original Issue Date** February 28, 2019

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Liquids - Category 2 Aspiration Hazard - Category 1 Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Eye Irritation - Category 2A Germ Cell Mutagenicity - Category 1B Carcinogenicity - Category 1B Reproductive Toxicity - Category 1A Specific Target Organ Toxicity - Single Exposure - Category 1 (Central Nervous System , retina , systemic toxicity , eyes , Nervous System) Specific Target Organ Toxicity - Single Exposure - Category 2 (kidneys) Specific Target Organ Toxicity - Single Exposure - Category 3 Specific Target Organ Toxicity - Repeated Exposure - Category 1 (Nervous System , Central Nervous System , digestive system , intestinal tract , stomach , respiratory system , kidneys , retina , eyes , Hematopoietic System) Specific Target Organ Toxicity - Repeated Exposure - Category 2 (skin , liver , spleen)



Signal Word Danger Hazard Statement(s)

Highly flammable liquid and vapor.

May be fatal if swallowed and enters airways.

Causes skin irritation, serious eye irritation, and damage to organs.

May cause genetic defects and cancer and may damage fertility or the unborn child.

May cause respiratory irritation and drowsiness or dizziness.

Causes damage to organs through prolonged or repeated exposure.

Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep away from heat/sparks/open flame/hot surfaces - No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Response

In case of fire: Use carbon dioxide, regular foam, dry chemical, water spray, or water fog. IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF IN EYES: 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. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.

Storage

Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Disposal

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

Other Hazards

Repeated exposure may cause skin dryness or cracking.

CASComponent NamePercent78-93-3Methyl ethyl ketone40-6067-64-1Acetone40-60

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Material Name: MEK/Acetone Blend

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| 108-88-3 | Toluene | 10-15 |
|-----------|---------------------|-------|
| 8032-32-4 | V. M. and P Naphtha | 1-10 |
| 67-56-1 | Methanol | 1-5 |
| 67-63-0 | Isopropyl alcohol | 1-2 |

Section 4 - FIRST AID MEASURES

Inhalation

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eyes

IF IN EYES: 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.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.

Most Important Symptoms/Effects

Acute

May be fatal if swallowed and enters airways. Causes skin irritation and serious eye irritation. May cause drowsiness or dizziness. Causes damage to organs. May cause respiratory irritation.

Delayed

May cause genetic defects and cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Repeated exposure may cause skin dryness or cracking.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Highly flammable liquid and vapor. Vapors may form explosive mixtures with air. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Runoff to sewer may cause a fire or explosion hazard. Containers may rupture or explode. Empty product containers may contain product residue.

Hazardous Combustion Products

Carbon monoxide and carbon dioxide.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due

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to fire. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn.

Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment. **Methods and Materials for Containment and Cleaning Up**

Eliminate all ignition sources if safe to do so. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if possible without personal risk. Prevent entry into waterways, sewers, basements, or confined areas. A vapor suppressing foam may be used to reduce vapors. Keep unnecessary people away, isolate hazard area and deny entry. Ventilate the area. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal. Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal. There may be specific regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see SECTION 15: REGULATORY INFORMATION.

Environmental Precautions

Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Keep away from heat/sparks/open flame/hot surfaces - No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/clothing and eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep container tightly closed.

Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Protect against physical damage. Store in a cool, well-ventilated area away from ignition sources. Store in a dry place. Keep from direct sunlight. Empty containers may contain product residue.

Incompatible Materials

Strong oxidizing agents

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

| Methyl ethyl ketone | 78-93-3 | | |
|---------------------|--|--|--|
| ACGIH: | 200 ppm TWA; 300 ppm STEL | | |
| NIOSH: | 200 ppm TWA ; 590 mg/m3 TWA; 300 ppm STEL ; 885 mg/m3 STEL 3000 ppm IDLH | | |

Component Exposure Limits

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| [| | |
|---------------------|---|--|
| OSHA (US): | 200 ppm TWA ; 590 mg/m3 TWA | |
| Acetone | 67-64-1 | |
| ACGIH: | 250 ppm TWA; 500 ppm STEL | |
| NIOSH: | 250 ppm TWA ; 590 mg/m3 TWA; 2500 ppm IDLH (10% LEL) | |
| OSHA (US): | 1000 ppm TWA ; 2400 mg/m3 TWA | |
| Toluene | 108-88-3 | |
| ACGIH: | 20 ppm TWA | |
| NIOSH: | 100 ppm TWA ; 375 mg/m3 TWA; 150 ppm STEL ; 560 mg/m3 STEL 500 ppm IDLH | |
| OSHA (US): | 200 ppm TWA; 300 ppm Ceiling | |
| V. M. and P Naphtha | 8032-32-4 | |
| NIOSH: | 350 mg/m3 TWA 1800 mg/m3 Ceiling 15 min | |
| Methanol | 67-56-1 | |
| ACGIH: | 200 ppm TWA; 250 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route | |
| NIOSH: | 200 ppm TWA ; 260 mg/m3 TWA; 250 ppm STEL ; 325 mg/m3 STEL Potential for dermal absorption; 6000 ppm IDLH | |
| OSHA (US): | 200 ppm TWA ; 260 mg/m3 TWA | |
| Isopropyl alcohol | 67-63-0 | |
| ACGIH: | 200 ppm TWA; 400 ppm STEL | |
| NIOSH: | 400 ppm TWA ; 980 mg/m3 TWA; 500 ppm STEL ; 1225 mg/m3 STEL 2000 ppm IDLH (10% LEL) | |
| OSHA (US): | 400 ppm TWA ; 980 mg/m3 TWA | |

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI) Methyl ethyl ketone (78-93-3)

2 mg/l Medium: urine Time: end of shift Parameter: MEK (nonspecific) Acetone (67-64-1) 25 mg/l Medium: urine Time: end of shift Parameter: Acetone (nonspecific)

Toluene (108-88-3)

0.02 mg/l Medium: blood Time: prior to last shift of workweek Parameter: Toluene ; 0.03 mg/l Medium: urine Time: end of shift Parameter: Toluene ; 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

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Methanol (67-56-1)

15 mg/l Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific) **Isopropyl alcohol (67-63-0)**

40 mg/l Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)

Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Safety glasses with side shields should be worn at a minimum. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

Skin Protection

Where skin contact is likely, wear chemical impervious gloves. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

Respiratory Protection

If ventilation is not sufficient to effectively prevent buildup of mists or vapors, appropriate respiratory protection must be provided. Use NIOSH-certified, full-face respirators with organic vapor cartridges respiratory protective equipment when concentrations of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Glove Recommendations

Wear appropriate chemical resistant gloves.

Protective Materials

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses. Gloves. Lab coat or apron.

| Section 9 - PHYSICAL AND CHEMICAL PROPERTIES | | | |
|--|----------------|---------------------------|-----------------|
| Appearance | Clear liquid | Physical State | Liquid |
| Odor | characteristic | Color | Not available |
| Odor Threshold | Not available | рН | Not available |
| Melting Point | 95 °C (203°F) | Boiling Point | 55 °C (131 °F) |
| Boiling Point Range | Not available | Freezing point | -95 °C |
| Evaporation Rate | Not available | Flammability (solid, gas) | Not available |
| Autoignition Temperature | Not available | Flash Point | -20 °C TCC |
| Lower Explosive Limit | 1.1 % | Decomposition temperature | Not available |
| Upper Explosive Limit | 7.1 % | Vapor Pressure | Not available |

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| Vapor Density (air=1) | Not available | Specific Gravity (water=1) | 0.81 - 0.97 |
|-----------------------|---------------|--|---------------|
| Water Solubility | (Slight) | Partition coefficient: n- octanol/water | Not available |
| Viscosity | Not available | Kinematic viscosity | Not available |
| Solubility (Other) | Not available | Density | Not available |
| Physical Form | Liquid | Volatility | 100 % |
| Molecular Weight | Not available | | |

Section 10 - STABILITY AND REACTIVITY

Chemical Stability

Stable under normal conditions of use. **Possibility of Hazardous Reactions** Will not occur. **Conditions to Avoid** Incompatible materials, ignition sources. **Incompatible Materials** Strong oxidizing agents. **Hazardous decomposition products** Carbon monoxide and carbon dioxide.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May cause drowsiness or dizziness and respiratory irritation. Inhalation of vapors may cause respiratory tract irritation, headache, dizziness, nausea and narcosis in high concentrations.

Skin Contact

Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

Eye Contact Causes serious eye irritation.

Ingestion

May be fatal if swallowed and enters airways.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Methyl ethyl ketone (78-93-3) Oral LD50 Rat 2483 mg/kg; Dermal LD50 Rabbit 5000 mg/kg; Inhalation LC50 Rat 11700 ppm 4 h Acetone (67-64-1) Oral LD50 Rat 5800 mg/kg; Dermal LD50 Rabbit >15700 mg/kg; Inhalation LC50 Rat 50100 mg/m3 8 h Toluene (108-88-3) Oral LD50 Rat 2600 mg/kg; Dermal LD50 Rabbit 12000 mg/kg; Inhalation LC50 Rat 12.5 mg/L 4 h V. M. and P Naphtha (8032-32-4) Inhalation LC50 Rat 3400 ppm 4 h Methanol (67-56-1)

Oral LD50 Rat 6200 mg/kg; Dermal LD50 Rabbit 15840 mg/kg; Inhalation LC50 Rat 22500 ppm 8 h

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Isopropyl alcohol (67-63-0)

Oral LD50 Rat 1870 mg/kg; Dermal LD50 Rabbit 4059 mg/kg; Inhalation LC50 Rat 72600 mg/m3 4 h **Product Toxicity Data**

Acute Toxicity Estimate

| Dermal | > 2000 mg/kg | |
|--------------------|--------------|--|
| Inhalation - Vapor | > 20 mg/L | |
| Oral | > 2000 mg/kg | |

Immediate Effects

May be fatal if swallowed and enters airways. Causes skin and eye irritation. May cause drowsiness or dizziness. Causes damage to organs. May cause respiratory irritation.

Delayed Effects

May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Repeated exposure may cause skin dryness or cracking.

Irritation/Corrosivity Data

Causes skin and eye irritation. Repeated exposure may cause skin dryness or cracking. May cause respiratory irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

| Acetone | 67-64-1 | |
|-------------------|--|--|
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen | |
| Toluene | 108-88-3 | |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen | |
| IARC: | Monograph 71 [1999] ; Monograph 47 [1989] (Group 3 (not classifiable)) | |
| Isopropyl alcohol | 67-63-0 | |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen | |
| IARC: | Monograph 71 [1999] ; Supplement 7 [1987] ; Monograph 15 [1977] (Group 3 (not classifiable)) | |

Germ Cell Mutagenicity

May cause genetic defects.

Tumorigenic Data

No information available for the product.

Reproductive Toxicity

May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Nervous system, eyes, central nervous system, retina, and systemic toxicity, kidneys.

Specific Target Organ Toxicity - Repeated Exposure

nervous system, hematopoietic system, central nervous system, digestive system, respiratory system, kidneys, eyes, intestinal tract, stomach, retina, liver, skin, spleen.

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Aspiration hazard

May be fatal if swallowed and enters airways. **Medical Conditions Aggravated by Exposure** No data available.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

| Harmful to aquatic life with long lasting effects. | | |
|--|--|--|
| Component Analysis - Aquatic Toxicity | | |

| Methyl ethyl ketone | 78-93-3 | |
|------------------------|---|--|
| Fish: | LC50 96 h Pimephales promelas 3130 - 3320 mg/L [flow-through] | |
| Invertebrate: | EC50 48 h Daphnia magna >520 mg/L IUCLID ; EC50 48 h Daphnia magna 5091 mg/L IUCLID ; EC50 48 h Daphnia magna 4025 - 6440 mg/L [Static] EPA | |
| Acetone | 67-64-1 | |
| Fish: | LC50 96 h Oncorhynchus mykiss 4.74 - 6.33 mL/L; LC50 96 h Pimephales promelas 6210 - 8120 mg/L [static]; LC50 96 h Lepomis macrochirus 8300 mg/L | |
| Invertebrate: | EC50 48 h Daphnia magna 10294 - 17704 mg/L [Static] EPA ; EC50 48 h Daphnia magna 12600 - 12700 mg/L IUCLID | |
| Toluene | 108-88-3 | |
| Fish: | LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through] (1 day old); LC50 96 h Pimephales promelas 12.6 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static]; LC50 96 h Oryzias latipes 54 mg/L [static]; LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static]; LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static] | |
| Algae: | EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID ; EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static] EPA | |
| Invertebrate: | EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [Static] EPA ; EC50 48 h Daphnia magna 11.5 mg/L IUCLID | |
| V. M. and P Naphtha | 8032-32-4 | |
| Algae: | EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID | |
| Methanol | 67-56-1 | |
| Fish: | LC50 96 h Pimephales promelas 28200 mg/L [flow-through]; LC50 96 h Pimephales promelas >100 mg/L [static]; LC50 96 h Oncorhynchus mykiss 19500 - 20700 mg/L | |

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| | [flow-through]; LC50 96 h Oncorhynchus mykiss 18 - 20 mL/L [static]; LC50 96 h Lepomis macrochirus 13500 - 17600 mg/L [flow-through] | |
|-------------------|--|--|
| Isopropyl alcohol | 67-63-0 | |
| Fish: | LC50 96 h Pimephales promelas 9640 mg/L [flow-through]; LC50 96 h Pimephales promelas 11130 mg/L [static]; LC50 96 h Lepomis macrochirus >1400000 µg/L | |
| Algae: | EC50 96 h Desmodesmus subspicatus >1000 mg/L IUCLID ; EC50 72 h Desmodesmus subspicatus >1000 mg/L IUCLID | |
| Invertebrate: | EC50 48 h Daphnia magna 13299 mg/L IUCLID | |

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No information available for the product.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Emerald regarding proper recycling or disposal.

Section 14 - TRANSPORT INFORMATION

US DOT Information: Shipping Name: FLAMMABLE LIQUIDS, N.O.S. , (Contains: Acetone, Methyl ethyl ketone) Hazard Class: 3 UN/NA #: UN1993 Packing Group: II Required Label(s): 3

IATA Information: Shipping Name: FLAMMABLE LIQUID, N.O.S. , (Contains: Acetone, , Methyl ethyl ketone) Hazard Class: 3 UN#: UN1993 Packing Group: II Required Label(s): 3

IMDG Information: Shipping Name: FLAMMABLE LIQUID, N.O.S., (Contains: Acetone, Methyl ethyl ketone) Hazard Class: 3 UN#: UN1993 Packing Group: II Required Label(s): 3

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TDG Information: Shipping Name: FLAMMABLE LIQUID, N.O.S., (Contains: Acetone, Methyl ethyl ketone) Hazard Class: 3 UN#: UN1993 Packing Group: II Required Label(s): 3 International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

| Methyl ethyl ketone | 78-93-3 | |
|---------------------|------------|--|
| IBC Code: | Category Z | |
| Toluene | 108-88-3 | |
| IBC Code: | Category Y | |
| Methanol | 67-56-1 | |
| IBC Code: | Category Y | |

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

| Methyl ethyl ketone | 78-93-3 |
|---------------------|-------------------------------------|
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| Acetone | 67-64-1 |
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| Toluene | 108-88-3 |
| SARA 313: | 1 % de minimis concentration |
| CERCLA: | 1000 lb final RQ ; 454 kg final RQ |
| Methanol | 67-56-1 |
| SARA 313: | 1 % de minimis concentration |
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| Isopropyl alcohol | 67-63-0 |

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| SARA 313: | 1 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification) |
|-----------|---|
|-----------|---|

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

| CAS-No. | Name | Percent by Weight |
|---------|-------------------|-------------------|
| 67-56-1 | Methanol | 1-5 |
| 67-63-0 | Isopropyl alcohol | 1-2 |

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Flammable; Carcinogenicity; Reproductive Toxicity; Skin Corrosion/Irritation; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity; Aspiration Hazard; Germ Cell Mutagenicity

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

| Component | CAS | CA | MA | MN | NJ | PA |
|---------------------|-----------|-----|-----|-----|-----|-----|
| Methyl ethyl ketone | 78-93-3 | Yes | Yes | Yes | Yes | Yes |
| Acetone | 67-64-1 | Yes | Yes | Yes | Yes | Yes |
| Toluene | 108-88-3 | Yes | Yes | Yes | Yes | Yes |
| V. M. and P Naphtha | 8032-32-4 | No | Yes | Yes | Yes | Yes |
| Methanol | 67-56-1 | Yes | Yes | Yes | Yes | Yes |
| Isopropyl alcohol | 67-63-0 | Yes | Yes | Yes | Yes | Yes |

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

WARNING! This product can expose you to chemicals including Toluene, Methanol, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

| Toluene | 108-88-3 |
|----------------|-----------------------------------|
| Repro/Dev. Tox | developmental toxicity, 1/1/1991 |
| Methanol | 67-56-1 |
| Repro/Dev. Tox | developmental toxicity, 3/16/2012 |

Component Analysis - Inventory Methyl ethyl ketone (78-93-3)

| US | CA | AU | CN | E | U | JP - ENCS | JP - ISHL | | KR KECI - Annex 1 | KR KECI - Annex 2 |
|------|----------------|-----|-----|-----|-----|--------------|-------------|-----|----------------------|----------------------|
| Yes | DSL | Yes | Ye | s E | IN | Yes | Yes | | Yes | No |
| KR - | KR - REACH CCA | | A | MX | NZ | РН | TH- TECI | TW | VN (Draft) | |
| Yes | | | Yes | Yes | Yes | Yes | Yes | Yes | | |

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| Aastana | (67 64 1) |
|---------|-----------|
| Acetone | (0/-04-1) |

| $ \begin{array}{ c c c c c } & \operatorname{CA} & \operatorname{AU} & \operatorname{CN} & \operatorname{EU} & \operatorname{JP} - \operatorname{ENCS} & \operatorname{JP} - \operatorname{ISHL} & \operatorname{KR} \operatorname{KEC1} - \operatorname{Annex 1} & \operatorname{Annex 2} - \operatorname{Annex 2} \\ \hline \begin{tabular}{ c c c c } & \operatorname{Yes} & \operatorname{Yes} & \operatorname{Yes} & \operatorname{Yes} & \operatorname{Yes} & \operatorname{Yes} & \operatorname{No} \\ \hline \begin{tabular}{ c c c c } & \operatorname{Yes} & \operatorname{Yes}$ | Acetone (0/-04-1) | | | | | | | | | | | |
|--|----------------------|-------------------|--------|------|------|-----|------|--|------------|------------|-----|----|
| KR - REACH CCAMXNZPHTH- TEC1TWVN (Draft)NoYesYesYesYesYesYesToluene (108-88-3)USCAAUCNEUJP - ENCSJP - ISHLKR KEC1 - Annex 1KR KEC1 - Annex 1YesDSLYesYesEINYesYesYesYesYesDSLYesYesEINYesYesYesYesYesDSLYesYesEINYesYesYesYesYesVesYesYesYesYesYesYesYesVesYesYesYesYesYesV. M. and P Napht-KRBOLJP - ENCSJP - ISHLKR KEC1 - Annex 1KR KEC1 - Annex 1YesDSLYesYesEINNoNoYesYesYesDSLYesYesIP - ISHLKR KEC1 - Annex 1KR KEC1 - Annex 2YesDSLYesYesIP - SHLKR KEC1 - Annex 1KR KEC1 - Annex 2YesDSLYesYesYesYesYesYesYesDSLYesYesYesYesYesYesYesDSLYesYesYesYesYesYesYesDSLYesYesYesYesYesYesYesDSLYesYesYesYesYesYes | US | CA | AU | C | Ν | EU | J | | | | | |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | Yes | DSL | Yes | Y | es | EI | N | Yes | Yes | | Yes | No |
| $\begin{tabular}{ c c c c c c } \hline $\mathbf{F}_{\mathbf{NCS}} & $ \mathbf{F}_{\mathbf{NCS}} &$ | KR - REACH CCA MX NZ | | | | | NZ | РН | · T · W/ | | VN (Draft) | | |
| USCAAUCNEUJP - ENCSJP - ISHLKR KECI - Annex 1KR KECI - Annex 2YesDSLYesYesEINYesYesYesNoKR - REACH CCAMXNZPHTH- TECITWVN (Draft)YesYesYesYesYesYesV. M. and P Naphtha (8032-32-4)USCAAUCNEUJP - ENCSJP - ISHLKR KECI - Annex 1KR KECI - Annex 2YesDSLYesYesEINNoNoYesNoKR - REACH CCAMXNZPHTH- TECITWVN (Draft)NoYesYesYesYesYesYesUSCAAUCNEUJP - ENCSJP - ISHLKR KECI - Annex 1KR KECI - Annex 2NoVYesYesYesYesYesNoKR - REACH CCAMXNZPHTH- TECITWVN (Draft)NoYesYesYesYesYesYesUSCAAUCNEUJP - ENCSJP - ISHLKR KECI - Annex 1KR KECI - Annex 2USCAAUCNEUJP - ENCSJP - ISHLKR KECI - Annex 1KR KECI - Annex 2YesDSLYesYesEINYesYesYesNoKR - REACH CCAMXNZPHTH- TECITWVN (Draft) </td <td colspan="6">No Yes Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td></td> | No Yes Yes | | | | | | Yes | Yes | Yes | Yes | Yes | |
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| KR - REACH CCAMXNZPHTH- TECITWVN (Draft)NoYesYesYesYesYesYesMethanol (67-56-1)USCAAUCNEUJP - ENCSJP - ISHLKR KECI - Annex 1KR KECI - Annex 2YesDSLYesYesEINYesYesYesYesNoKR - REACH CCAMXNZPHTH- TECITWVN (Draft)VN (Draft) | US CA AU CN E | | | | | EU | J | | JP - ISHL | | | |
| KR - REACH CCAMXNZPHTECITWVN (Draft)NoYesYesYesYesYesYesMethanol (67-56-1)USCAAUCNEUJP - ENCSJP - ISHLKR KECI - Annex 1KR KECI - Annex 2YesDSLYesYesEINYesYesYesNoKR - REACH CCAMXNZPHTH- TECITWVN (Draft) | Yes | DSL | Yes | Y | es | EII | N | No | No | | Yes | No |
| Methanol (67-56-1) US CA AU CN EU JP - ENCS JP - ISHL KR KECI - Annex 1 KR KECI - Annex 2 Yes DSL Yes Yes EIN Yes Yes Yes No KR - REACH CCA MX NZ PH TH- TECI TW VN (Draft) | KR - REACH CCA MX | | | | X | NZ | РН | | TW | VN (Draft) | | |
| US CA AU CN EU JP - ENCS JP - ISHL KR KECI - Annex 1 KR KECI - Annex 2 Yes DSL Yes Yes EIN Yes Yes Yes No KR - REACH CCA MX NZ PH TH- TECI TW VN (Draft) | No | | | | Ye | s | Yes | Yes | Yes | Yes | Yes | |
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| KR - REACH CCA MX NZ PH TH- TECI TW VN (Draft) | US CA AU CN H | | | | EU | J | | JP - ISHL | | | | |
| KR - REACH CCA MX NZ PH TECI TW VN (Draft) | Yes | es DSL Yes Yes El | | EI | N | Yes | Yes | | Yes | No | | |
| Yes Yes Yes Yes Yes Yes | KR - REACH CCA MX | | | | NZ | РН | | TW | VN (Draft) | | | |
| | Yes Yes Yes | | | | | | Yes | Yes | Yes | Yes | Yes | |

Material Name: MEK/Acetone Blend

SDS ID: 88001

Isopropyl alcohol (67-63-0)

| US | CA | AU | Cì | N | EU | JP - ENCS | JP - ISHL | | KR KECI - Annex 1 | KR KECI - Annex 2 |
|----------------|-----|-----|-------|------|-----|--------------|-----------|------------|----------------------|----------------------|
| Yes | DSL | Yes | Ye | es . | EIN | Yes | Yes | | Yes | No |
| KR - REACH CCA | | L. | MX | K NZ | PH | TH- TECI | TW | VN (Draft) | | |
| No | | Yes | s Yes | Yes | Yes | Yes | Yes | | | |

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 2 Fire: 3 Instability: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

Addition to Section 15.

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA -California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC -European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F -Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG -International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID -International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL), KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIstsTM - ChemADVISOR's Regulatory Database; MAK -Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne-Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc -Semi-quantitative; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG -Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Material Name: MEK/Acetone Blend

Other Information

Disclaimer:

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Emerald assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplied to the user.