

Section 1 - Chemical Product and Company Identification

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| Product Name | UltraSol 200 |
| Synonyms | Enhanced Condensate |
| Product Use | Wax and asphaltene solvent for oil wells, gas wells, surface flow lines |
| Restriction on Use | None identified |
| Manufacturer/Supplier | CFR Chemicals 38451 Range Road 22 County of Red Deer T4E 2N6 |
| General Assistance | 1 (877) 269-3419 |
| Emergency Telephone | 613-966-6666 (CANUTEC 24 Hour Phone Number) |
| Date of Preparation of SDS | July 7, 2017 |

Section 2 – Hazard Identification

Signal Word Danger

GHS Pictogram(s)



Target Organs Narcotic Effects

Hazard Statement:

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| H225 | Highly flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 + H320 | Causes skin irritation and causes eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| H340 | May cause genetic defects. |
| H350 | May cause cancer. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H401 | Toxic to aquatic life. |
| H411 | Toxic to aquatic life with long-lasting effects. |

Precautionary Statement

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| 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 surface, 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 and all material-handling equipment. |
| P242 | Use only non-sparking tools. |
| P243 | Take precautionary measures against static discharge. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |

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| P264 | Wash skin thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/eye protection/face protection. |
| Response | |
| P321 | Specific Treatment: see response statements on the label |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTRE / DOCTOR. |
| P331 | DO NOT induce vomiting. |
| P302 + P352 | IF ON SKIN: Wash with plenty of water. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminate 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 CENTRE or doctor/physician if you feel unwell. |
| P332 + P313 | If skin irritation occurs: Get medical advice/attention. |
| P337 + P313 | If eye irritation persists: Get medical advice/attention. |
| P362 + P364 | Take off contaminated clothing and wash it before reuse. |
| P370 + P378 | In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish. |
| P391 | Collect spillage. |
| Storage | |
| P403 + P233 | Store in well-ventilated place. Keep contained tightly closed. |
| P403 + P235 | Store in well-ventilated place. Keep cool. |
| P405 | Store locked up. |
| Disposal | |
| P501 | Dispose of contents/container to an approved waste disposal unit. |
| GHS Classification | Flammable liquids (Category 2) Acute toxicity, dermal (Category 4) Acute toxicity, inhalation (Category 4) Skin corrosion/irritation (Category 2) Serious eye damage/eye irritation (Category 2B) Mutagenicity (Category 1B) Carcinogenicity (Category 1B) Toxic to reproduction (Category 2) Specific target organ toxicity - single exposure (Category 3 narcotic effects) Specific target organ toxicity - repeated exposure (Category 2) Aspiration hazard (Category 1) Hazardous to the aquatic environment, acute hazard (Category 2) Hazardous to the aquatic environment, acute chronic (Category 2) |
| HMIS Classification | |
| Health Hazard | 2 |
| Chronic Health Hazard | * |
| Flammability | 3 |
| Physical Hazards | 0 |

Potential health effects

- Inhalation** Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory tract irritation.
- Ingestion** May be harmful if swallowed. Aspiration hazard if swallowed – can enter lungs and cause damage.
- Skin** May be harmful if absorbed through skin. May cause skin irritation.
- Eyes** May cause eye irritation.

Section 3 – Composition Information on Ingredients

| HAZARDOUS INGREDIENT | Hazardous Ingredient, Synonyms | PERCENT | CAS NUMBER |
|---|--|----------|------------|
| Toluene | benzyl hydride; methylbenzene; phenylmethane; toluol. | 10 – 20% | 108-88-3 |
| Xylene (o, m, p isomers) | Xylenes; Xylol; methyl toluene, benzene, dimethyl-; dimethylbenzene. | 5 – 15% | 1330-20-7 |
| n-hexane | n-hexane, normal-Hexane; Hexyl hydride; n-Hexylhydride; n-Caproylhydride; Hexane, normale | 5 – 15% | 110-54-3 |
| Hexane, other isomers | Not available | 5 – 15% | * |
| Naptha, petroleum, heavy catalytic reformed** | Not available | 5 – 10% | 64741-68-0 |
| Heptane | n-heptane, normal-heptane, heptyl hydride | 2 – 10% | 142-82-5 |
| Methylcyclopentane | Methyl cyclopentane, methylpentamethylene | 2 – 10% | 96-37-7 |
| Ethylene Glycol Monobutyl Ether | EGMBE; 2-Butoxyethanol; Glycol ether EB; Butyl cellosolve; Butyl glycol | 0 – 3% | 111-76-2 |
| Dodecylbenzenesulphonic acid | lauralbenzenesulfonic acid; DDBSA | 0 – 1% | 27176-87-0 |
| Cyclohexane | Hexamethylene; Hexahydrobenzene; Hexanaphthene | 0 – 1% | 110-82-7 |
| This product may also contain | | | |
| Methanol | Methyl alcohol, wood alcohol, carbinol, wood spirits, methyl hydroxide, methyl hydrate | 0 – 2% | 67-56-1 |
| Isopropanol | 2-propanol; IPA; Isopropyl Alcohol; 1-methylethanol; 1-methylethyl alcohol; 2-hydroxypropane; i-propanol; propan-2-ol; sec-propanol. | 0 – 2% | 67-63-0 |
| Methylethyl ketone | 2-Butanone; Butan-2-one; Butanone; Ethyl methyl ketone; MEK; methyl acetone | 0 – 2% | 78-93-3 |
| Methylisobutyl ketone | | 0 – 8% | 108-10-1 |
| 2-Ethylhexanol | 2-Ethyl-1-hexanol, Isooctanol, Isooctyl Alcohol | 0 – 2% | 104-76-7 |
| Chemical Formula | * = Various ** = Mixture *** = Proprietary mixture | | |

Section 4 - First Aid Measures

- Inhalation** Move victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that vas of vapour is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if

breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison centre or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.

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| Eye Contact | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower lids. Check for and remove contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. |
| Skin Contact | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | Get medical attention immediately. Call a poison control centre or physician. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband. |

Most Important Symptoms/Effects

Acute

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| Eye contact | Causes eye irritation. |
| Inhalation | Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. |
| Skin contact | No known significant effects or critical hazards. |
| Ingestion | Can cause central nervous system (CNS) depression. |

Delayed

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| Eye contact | No specific data. |
| Inhalation | Adverse symptoms may include the following:; nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness, reduced fetal weight, increase in fetal deaths, skeletal malformations |
| Skin contact | Adverse symptoms may include the following:; reduced fetal weight, increase in fetal deaths, skeletal malformations |
| Ingestion | Adverse symptoms may include the following:; reduced fetal weight, increase in fetal deaths, skeletal malformations |

Note to Physician Treat symptomatically.

Section 5 – Fire-Fighting Measures

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| Conditions of Flammability | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/ hot surface. |
| Extinguishing Media | Use water spray (fog), alcohol-resistant foam, dry chemical or carbon dioxide |
| Unsuitable Extinguishing Media | Do not use water jet. |
| Unusual Fire/Explosion Hazard | No data available. |
| Hazardous Combustion | |

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| Products | Carbon oxides |
| Fire Fighting Equipment | Wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode. |

Section 6 – Accidental Release Measures

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| Personal precautions | Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. |
| Methods and materials for containment and cleaning up | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |

Section 7 – Handling and Storage

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| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. |
| Conditions for safe storage | Keep container tightly closed in a dry and well-ventilated place. |
| Incompatible Conditions | Heat, flames and sparks. |
| Incompatible Materials | Oxidizing materials, strong acids. |

Section 8 – Exposure Controls / Personal Protection

Occupational Exposure Limits

| Ingredient Name | Exposure Limits |
|---|--|
| Toluene | Canada, Alberta, Occupational Health and Safety Code (table 2: OEL) TWA: 50ppm |
| Xylene (o, m, p isomers) | Canada, Alberta, Occupational Health and Safety Code (table 2: OEL) TWA: 100ppm STEL: 150ppm |
| n-hexane | ACGIH TLV (USA, 4/2014). Absorbed through skin. TWA: 50ppm 8 Hours OSHA PEL (USA, 2/2013) TWA: 500 ppm 8 hours TWA: 1800 mg/m ³ 8 Hours |
| Hexane, other isomers | ACGIH TWA: 500ppm 8 Hours STEL: 10000 ppm 15 minutes |
| Naptha, petroleum, heavy catalytic reformed** | Canada, Alberta, Occupational Health and Safety Code (table 2: OEL) None Established |
| Heptane | ACGIH TLV (USA, 4/2014). TWA: 400ppm 8 Hours |

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| | STEL: 500 ppm 15 minutes |
| | OSHA PEL (USA, 2/2013) |
| | TWA: 500 ppm 8 hours |
| | TWA: 2000 mg/m ³ 8 Hours |
| Methylcyclopentane | Canada, Alberta, Occupational Health and Safety Cote (table 2: OEL) |
| | None established |
| | ACGIH TLV (USA, 4/2014). |
| | TWA: 500ppm 8 Hours, 1760 mg/m ³ 8 Hours |
| | STEL: 1000 ppm 15 minutes, 1050 mg/m ³ 15 minutes |
| Ethylene Glycol Monobutyl Ether | Canada, Alberta, Occupational Health and Safety Cote (table 2: OEL) |
| | TWA: 20ppm |
| | ACGIH TLV |
| | TWA: 20ppm |
| Dodecylbenzenesulphonic acid | Canada, Alberta OHSC Code |
| | Not listed |
| | ACGIH TLV |
| | TLV: 200ppm |
| Cyclohexane | ACGIH TLV (USA, 4/2014). |
| | TWA: 100ppm 8 Hours |
| | OSHA PEL (USA, 2/2013) |
| | TWA: 300 ppm 8 hours |
| | TWA: 10500 mg/m ³ 8 Hours |
| Methanol | Canada, Alberta, Occupational Health and Safety Cote (table 2: OEL) |
| | TWA: 200ppm |
| | STEL: 250ppm |
| | Canada, Alberta, Occupational Health and Safety Cote (table 2: OEL) |
| Isopropanol | STEL: 400ppm |
| | TWA: 200ppm |
| | Canada, Alberta, Occupational Health and Safety Cote (table 2: OEL) |
| Methylethyl ketone | TWA: 200ppm |
| | Ceiling: 300ppm (15 min) |
| | Canada, Alberta, Occupational Health and Safety Cote (table 2: OEL) |
| Methylisobutyl ketone | TWA: 50ppm |
| | Canada, Alberta, Occupational Health and Safety Cote (table 2: OEL) |
| 2-Ethylhexanol | None established |

Personal protective equipment

Eye/face protection

Chemical safety glasses with side shields to prevent eye contact. As a general rule do not wear contact lenses when handling chemicals.

Skin protection

Wear chemical resistant gloves, impermeable protective clothing and safety shoes.

Respiratory protection

Use NIOSH approved respirators and components.

General hygiene

Considerations

Handle in accordance with good industrial hygiene and safety.

Specific engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure. Safety shower, eye wash, and fire extinguisher should be present.

Section 9 – Physical and Chemical Properties

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| Physical State | Liquid | Water Solubility | Insoluble |
| Appearance & Odour | Clear colourless to pale brown liquid with distinct | Boiling Point | 66°C |

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|----------------------------------|--------------------|--|---------------|
| | hydrocarbon odour. | | |
| Vapour Pressure | Not available | Boiling Range | 66°C – 240°C |
| Odour Threshold | Not available | Melting Point | <-40°C |
| Evaporation Rate | Not available | Freezing Point | <-40°C |
| Vapour Density | >1 (Air = 1) | Lower Explosive Limit (LEL) | 0.6% |
| Specific Gravity | 0.79 – 0.83 | Upper Explosive Limit (UEL) | 15% |
| pH | Not available | Partition coefficient (n-octanol/water) | Not available |
| Flammability (Solid, Gas) | Not available | Viscosity | Not available |
| Decomposition Temperature | Not available | Auto-ignition temperature | >400°C |
| Flash Point | -30° (PMCC) | | |

Section 10 – Stability and Reactivity

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| Reactivity | No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | Under normal conditions of storage and use, hazardous reactions will not occur |
| Conditions to avoid | Heat, flames and sparks. |
| Materials to avoid | Oxidizing materials, strong acids. |
| Hazardous decomposition products | Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides, sulfur oxides. Other decomposition products – May release carbon oxides, aldehydes, ketones, reactive hydrocarbons, smoke and irritating vapors when heated to decomposition. |

Section 11- Toxicological Information

Information on Likely Routes of Exposure

No data available

Acute toxicity

| Product/Ingredient Name | Result | Species | Dose | Exposure |
|--------------------------|---------------------|---------|------------|----------|
| Toluene | LC50 Inhalation gas | Rat | >20mg/L | 4 Hr |
| | LD50 Oral | Rat | 5580mg/kg | - |
| | LD50 Dermal | Rabbit | 12223mg/kg | - |
| Xylene (o, m, p isomers) | LC50 Inhalation gas | Rat | 6350ppm | 4 Hr |
| | LD50 Oral | Rat | 3253mg/kg | - |
| | LD50 Dermal | Rabbit | 12126mg/kg | 24 Hr |
| n-Hexane | LC50 Inhalation gas | Rat | 48000ppm | 4 Hr |
| | LD50 Oral | Rat | 15840mg/kg | - |
| Hexane, other isomers | LC50 Inhalation gas | Rat | 48000ppm | 4 Hr |

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|--|-------------------------|------------|------------------------|-------|
| Naptha, petroleum heavy catalytic reformed | LC50 Inhalation gas | Rat | >5.04mg/L | 4 Hr |
| | LD50 Dermal | Rabbit | >2000mg/kg | 24 Hr |
| Heptane | LD50 Dermal | Rabbit | >2000mg/kg | - |
| | LD50 Oral | Rat | >5000mg/kg | - |
| Ethylene Glycol | LD50 Oral | Rat | 3730mg/kg | - |
| Monobutyl Ether | LD50 Dermal | Rat | >3000mg/kg | - |
| Dodecylbenzenesulphonic acid | LD50 Oral | Rat | 650mg/kg | - |
| Cyclohexane | LC50 Inhalation Vapour | Mouse | 70000mg/m ³ | 2 Hr |
| | LD50 Oral | Rat | >5000mg/kg | - |
| Methanol | LC50 Inhalation, vapour | Rat | 128.2mg/L | 4 Hr |
| | LD50 Oral | Rat | 1187-2769mg/kg | - |
| | LD50 Dermal | Rabbit | 17100mg/kg | - |
| | LC50 Inhalation gas | Rat | 73mg/L | 4 Hr |
| Isopropanol | LD50 Oral | Rat | 5045mg/kg | - |
| | LD50 Dermal | Rabbit | 12870mg/kg | - |
| | LD50 Oral | Rat | 2737mg/kg | - |
| Methylethyl ketone | LC50 Inhalation gas | Mouse | 32000ppm | 4 Hr |
| | LD50 Oral | Guinea Pig | 1600mg/kg | - |
| Methylisobutyl ketone | LC50 Inhalation gas | Rat | 8000ppm | 4 Hr |
| | LD50 Oral | Rat | 3370mg/kg | - |
| 2-Ethylhexanol | LD50 Dermal | Rat | >3000mg/kg | - |

Skin corrosion/irritation Causes skin and eye irritation.

Respiratory or skin sensitization

No data available

Mutagenicity

Xylene and Toluene have been investigated as mutagens. There has been some evidence of chromosomal changes in workers exposed to benzene.

Carcinogenicity

Components are suspected of causing cancer.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Teratogenicity

Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure

This product is not reported to have any specific target organ general toxicity single exposure effects.

Specific target organ toxicity - repeated exposure

Causes damage to organs (liver, kidneys, blood, nervous system and skin) through prolonged or repeated exposure.

Aspiration hazard

Aspiration may result in chemical pneumonia, severe lung damage, respiratory failure and even death.

Signs and Symptoms of Exposure

Inhalation Adverse symptoms may include: nausea and vomiting, headache, drowsiness/fatigue, dizziness/vertigo and unconsciousness

Ingestion Adverse symptoms may include: nausea and vomiting

Skin Adverse symptoms may include: irritation, redness

Eyes Adverse symptoms may include: pain or irritation, watering, redness

Synergistic effects No data available

Delayed and Immediate Effects and also Chronic Effects from Short and Long Term Exposure

Short Term Exposure

Potential immediate Health Effects

Inhalation Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed. Aspiration hazard if swallowed – can enter lungs and cause damage.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Potential Delayed Health Effects No data available.

Long Term Exposure

Potential immediate Health Effects No data available.

Potential Delayed Health Effects No data available.

Potential Chronic Effects No data available.

Section 12 – Ecological Information

Toxicity No data available
Persistence and degradability
Biodegradability No data available
Bioaccumulative potential No data available
Mobility in soil No data available
PBT and vPvB assessment No data available
Other adverse effects No known significant effects or critical hazards.

Section 13 – Disposal Considerations

Product This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging Dispose of as unused product.

Section 14 - Transportation Information

CANADA Transportation of Dangerous Goods (TDG)

Shipping Name UN1268, PETROLEUM DISTILLATES, N.O.S. (Naphtha Solvent), 3. PG II
Class 3
UN Number UN1268
Packaging Group I
Label



Environmental hazards Not a marine pollutant.
Transportation in bulk,



Safety Data Sheet - GHS UltraSol 200

Date of Revision: June 19, 2019

| | |
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| if applicable | No data available |
| Special Precautions | No data available |
| Reportable Quantity | 12345.7 lbs / 5604.9Kg [2177.5 gal / 8242.6L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RW transportation requirements. |

Section 15 – Regulatory Information

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act)

All components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

TSCA Inventory (8b)

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

Section 16 – Other Information

REVISION SUMMARY:

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|---------------------|---------------|
| Date of Preparation | July 7, 2017 |
| Date of Revision | June 19, 2019 |

SDS Prepared by: CFR Lab Manager

CFR Chemicals Inc. provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. CFR Chemicals Inc. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, CFR CHEMICALS INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OR RELIANCE UPON THIS INFORMATION.