

SAFETY DATA SHEET

Revision Date 26-March-2015

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier Product Name

Foremost 586 Super Solv II

UN/ID No Product Code UN1710 586

Recommended Use of the Chemical and Restrictions on UseRecommended UseIndustrial cleaner.

Details of the Supplier of the Safety Data Sheet

Supplier Address Delta Foremost Chemical Corporation 3915 Air Park St. Memphis, Tennessee 38118

Emergency Telephone Number

Company Phone Number Emergency Telephone (901) 363-4340 INFOTRAC 1-352-323-3500 (International) 1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

| Acute toxicity - Inhalation (Vapors) | Category 4 |
|--|-------------|
| Skin Corrosion/Irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Germ Cell Mutagenicity | Category 2 |
| Carcinogenicity | Category 1A |
| Specific target organ toxicity (single exposure) | Category 3 |
| Aspiration toxicity | Category 1 |

Signal Word DANGER

Hazard Statements

Harmful if inhaled Causes skin irritation Causes serious eye irritation Suspected of causing genetic defects May cause cancer May cause respiratory irritation. May cause drowsiness or dizziness May be fatal if swallowed and enters airways



Appearance Water white liquid

Physical State Liquid

Odor Chlorinated

Precautionary Statements - Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area Wash face, hands and any exposed skin thoroughly after handling Wear eye/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Get medical attention if irritation occurs IF ON SKIN: Wash with plenty of soap and water If skin irritation persists: Get medical advice/attention Take off contaminated clothing and wash it before reuse IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

May be harmful if swallowed

Other Hazards

Toxic to aquatic life with long lasting effects Toxic to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|---------------------|----------|-------------|
| Trichloroethylene | 79-01-6 | Proprietary |
| Tetrachloroethylene | 127-18-4 | Proprietary |

Product contains a proprietary mixture of ingredients.

4. FIRST AID MEASURES

First Aid Measures

| General Advice | If exposed or concerned: Get medical advice/attention. Provide this SDS to medical personnel for treatment. |
|----------------|--|
| Eye Contact | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation occurs. |
| Skin Contact | Flush with water while removing contaminated clothing and shoes before reuse. If irritation persists, get medical attention. |

| Inhalation | Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial |
|------------|--|
| | respiration if not breathing. If symptoms persist, call a physician. |
| | |

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Seek medical attention immediately.

Most Important Symptoms and Effects, both Acute and Delayed

SymptomsLiquid in eyes can cause pain and irritation. Corneal injury likely. May cause skin and eye
irritation. Ingestion may result in irritation of mouth and gastrointestinal tract. Vomiting may
cause chemical pneumonia. Overexposure by inhalation can cause irritation of the
respiratory tract and adverse effects on the central nervous system. High concentrations or
prolonged exposure can cause unconsciousness and death.

Indication of any Immediate Medical Attention and Special Treatment Needed

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Note to Physicians Alcoholism, acute and chronic kidney or liver disease, rhythmic disorders of the heart, neuritis and other disorders of the nervous system. Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam, carbon dioxide or dry chemical extinguisher, or water. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Vapor concentrated in a confined or poorly ventilated area can be ignited upon contact with a high energy spark, flame, or high intensity heat source.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes and inhalation of vapors.

Methods and Material for Containment and Cleaning Up

| Methods for Containment | Prevent further leakage or spillage if safe to do so. Absorb liquid with sawdust, sand or industrial absorbent. |
|-------------------------|--|
| Methods for Cleaning Up | Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. For waste disposal, see section 13 of the SDS. |

7. HANDLING AND STORAGE

Precautions for Safe Handling

| Advice on Safe Handling | Handle in accordance with good industrial hygiene and safety practice. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Wear eye/face protection. Avoid contact with skin, eyes or clothing. Avoid breathing vapors. Avoid breathing mists. Use only in well-ventilated areas. |
|---------------------------------|---|
| Conditions for Safe Storage, In | cluding any Incompatibilities |
| Storage Conditions | Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep in properly labeled containers. Store locked up. |
| Incompatible Materials | Caustic soda, caustic potash, liquid oxygen or other oxidizing materials, alkali metals. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---------------------|---------------|--|----------------|
| Trichloroethylene | STEL: 25 ppm | TWA: 100 ppm | IDLH: 1000 ppm |
| 79-01-6 | TWA: 10 ppm | (vacated) TWA: 50 ppm | |
| | | (vacated) TWA: 270 mg/m ³ | |
| | | (vacated) STEL: 200 ppm | |
| | | (vacated) STEL: 1080 mg/m ³ | |
| | | Ceiling: 200 ppm | |
| Tetrachloroethylene | STEL: 100 ppm | TWA: 100 ppm | IDLH: 150 ppm |
| 127-18-4 | TWA: 25 ppm | (vacated) TWA: 25 ppm | |
| | | (vacated) TWA: 170 mg/m ³ | |
| | | Ceiling: 200 ppm | |

Appropriate Engineering Controls

| Engineering Controls | Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS. |
|------------------------------------|---|
| Individual Protection Measures, su | ch as Personal Protective Equipment |
| Eye/Face Protection | Goggles or face shield. |
| Skin and Body Protection | Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear protective Neoprene™ gloves, Rubber gloves. |
| Respiratory Protection | Use self-contained breathing apparatus if there is a heavy vapor about 300 ppm. |
| General Hygiene Consideration | s Handle in accordance with good industrial hygiene and safety practice. Wash hands after use and wash contaminated clothes before reuse. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State Appearance Color

Property pH Melting Point/Freezing Point Boiling Point/Boiling Range Flash Point Evaporation Rate Liquid Water white liquid Colorless

Values Not determined Not determined 86.66 °C / 188 °F Not determined 0.28 Odor Odor Threshold Chlorinated Not determined

Remarks • Method

| Flammability (Solid, Gas) | Not determined |
|------------------------------|--------------------|
| Upper Flammability Limits | Not applicable |
| Lower Flammability Limit | Not determined |
| Vapor Pressure | Not established |
| Vapor Density | Not established |
| Specific Gravity | 1.465 |
| Water Solubility | Insoluble in water |
| Solubility in Other Solvents | Not determined |
| Partition Coefficient | Not determined |
| Autoignition Temperature | Not determined |
| Decomposition Temperature | Not determined |
| Kinematic Viscosity | Not determined |
| Dynamic Viscosity | Not determined |
| Explosive Properties | Not determined |
| Oxidizing Properties | Not determined |

(1=Water)

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Avoid heat, sparks, open flames and other ignition sources.

Incompatible Materials

Caustic soda, caustic potash, liquid oxygen or other oxidizing materials, alkali metals.

Hazardous Decomposition Products

Hydrogen chloride, and traces of chlorine or phosgene gases.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

| Eye Contact | Causes serious eye irritation. |
|--------------|--------------------------------|
| Skin Contact | Causes skin irritation. |
| Inhalation | Harmful if inhaled. |
| Ingestion | May be harmful if swallowed. |

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------------------------|--------------------|--------------------|---|
| Trichloroethylene 79-01-6 | = 4290 mg/kg (Rat) | > 20 g/kg (Rabbit) | = 8000 ppm (Rat)4 h = 26300 ppm (Rat)1 h |
| Tetrachloroethylene 127-18-4 | = 2629 mg/kg (Rat) | - | = 4000 ppm (Rat)4 h |

Information on Physical, Chemical and Toxicological Effects

| Symptoms | Please see section 4 of this SDS for symptoms. |
|----------|--|
|----------|--|

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Germ Cell Mutagenicity Suspected of causing genetic defects.

Carcinogenicity

May cause cancer; The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested. Large doses caused malignant tumors in mice.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---------------------------------|-------|----------|------------------------|------|
| Trichloroethylene 79-01-6 | A2 | Group 1 | Reasonably Anticipated | Х |
| Tetrachloroethylene 127-18-4 | A3 | Group 2A | Reasonably Anticipated | Х |

ACGIH (American Conference of Governmental Industrial Hygienists) A2 - Suspected Human Carcinogen A3 - Animal Carcinogen IARC (International Agency for Research on Cancer) Group 1 - Carcinogenic to Humans Group 2A - Probably Carcinogenic to Humans

STOT - Single Exposure May cause respiratory irritation. May cause drowsiness or dizziness.

| Chronic Toxicity | Prolonged exposure above the OSHA permissible limits may result in liver and/or kidney |
|------------------|--|
| | damage. |

Aspiration Hazard

May be fatal if swallowed and enters airways.

Numerical Measures of Toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic organisms. Toxic to aquatic life with long lasting effects.

Component Information

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---------------------------------|--|---|--|---|
| Trichloroethylene 79-01-6 | 450: 96 h Desmodesmus subspicatus mg/L EC50 175: 96 h Pseudokirchneriella subcapitata mg/L EC50 | 31.4 - 71.8: 96 h Pimephales promelas mg/L LC50 flow- through 39 - 54: 96 h Lepomis macrochirus mg/L LC50 static | EC50 = 0.81 mg/L 24 h EC50 = 115 mg/L 10 min EC50 = 190 mg/L 15 min EC50 = 235 mg/L 24 h EC50 = 410 mg/L 24 h EC50 = 975 mg/L 5 min | 2.2: 48 h Daphnia magna mg/L EC50 |
| Tetrachloroethylene 127-18-4 | 500: 96 h Pseudokirchneriella subcapitata mg/L EC50 | 12.4 - 14.4: 96 h Pimephales promelas mg/L LC50 flow- through 8.6 - 13.5: 96 h Pimephales promelas mg/L LC50 static 11.0 - 15.0: 96 h Lepomis macrochirus mg/L LC50 static 4.73 - 5.27: 96 h Oncorhynchus mykiss mg/L LC50 flow-through | EC50 = 112 mg/L 24 h EC50 = 120.0 mg/L 30 min | 6.1 - 9.0: 48 h Daphnia magna mg/L EC50 Static |

Persistence and Degradability

Not determined

Bioaccumulation Not determined

Mobility

| Chemical Name | Partition Coefficient |
|------------------------------|-----------------------|
| Trichloroethylene 79-01-6 | 2.29 |
| Tetrachloroethylene | 2.53 - 2.88 |
| 127-18-4 | |

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

| Chemical Name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|---------------------------------|------|--|---------------------------|------------------------|
| Trichloroethylene 79-01-6 | U228 | Included in waste streams: F001, F002, F024, F025, F039, K018, K019, K020 | 0.5 mg/L regulatory level | U228 |
| Tetrachloroethylene 127-18-4 | U210 | Included in waste streams: F001, F002, F024, F025, F039, K016, K019, K020, K073, K116, K150, K151 | 0.7 mg/L regulatory level | U210 |

| Chemical Name | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|-------------------|---|------------------------|-------------------------------|------------------------|
| Trichloroethylene | Category I - Volatiles | | Toxic waste | |
| 79-01-6 | | | waste number F025 | |
| | | | Waste description: | |
| | | | Condensed light ends, spent | |
| | | | filters and filter aids, and | |
| | | | spent desiccant wastes from | |
| | | | the production of certain | |
| | | | chlorinated aliphatic | |
| | | | hydrocarbons, by free radical | |
| | | | catalyzed processes. These | |
| | | | chlorinated aliphatic | |
| | | | hydrocarbons are those | |
| | | | having carbon chain lengths | |
| | | | ranging from one to and | |
| | | | including five, with varying | |
| | | | amounts and positions of | |
| | | | chlorine substitution. | |

Foremost 586 Super Solv II

| Tetrachloroethylene | Category I - Volatiles | Toxic waste |
|---------------------|------------------------|-------------------------------|
| 127-18-4 | | waste number F025 |
| | | Waste description: |
| | | Condensed light ends, spent |
| | | filters and filter aids, and |
| | | spent desiccant wastes from |
| | | the production of certain |
| | | chlorinated aliphatic |
| | | hydrocarbons, by free radical |
| | | catalyzed processes. These |
| | | chlorinated aliphatic |
| | | hydrocarbons are those |
| | | having carbon chain lengths |
| | | ranging from one to and |
| | | including five, with varying |
| | | amounts and positions of |
| | | chlorine substitution. |

| Chemical Name | California Hazardous Waste Status |
|---------------------------------|-----------------------------------|
| Trichloroethylene 79-01-6 | Тохіс |
| Tetrachloroethylene 127-18-4 | Тохіс |

14. TRANSPORT INFORMATION

| <u>Note</u> | Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. |
|--|---|
| <u>DOT</u> UN/ID No Proper Shipping Name Hazard Class Packing Group | UN1710 Trichloroethylene Solution 6.1 III |
| <u>IATA</u> UN/ID No Proper Shipping Name Hazard Class Packing Group | UN1710 Trichloroethylene Solution 6.1 III |
| IMDG UN/ID No Proper Shipping Name Hazard Class Packing Group | UN1710 Trichloroethylene Solution 6.1 III |

15. REGULATORY INFORMATION

International Inventories

Not Determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---------------------|--------------------------|----------------|-----------------------------------|
| Trichloroethylene | 100 lb 1 lb | | RQ 100 lb final RQ |
| 79-01-6 | | | RQ 45.4 kg final RQ RQ 1 lb final |
| | | | RQ |
| | | | RQ 0.454 kg final RQ |
| Tetrachloroethylene | 100 lb 1 lb | | RQ 100 lb final RQ |
| 127-18-4 | | | RQ 45.4 kg final RQ RQ 1 lb final |
| | | | RQ |
| | | | RQ 0.454 kg final RQ |

SARA 313

| Chemical Name | CAS No | Weight-% | SARA 313 - Threshold Values % |
|---------------------|----------|-------------|----------------------------------|
| Trichloroethylene | 79-01-6 | Proprietary | 0.1 |
| Tetrachloroethylene | 127-18-4 | Proprietary | 0.1 |

CWA (Clean Water Act)

| Component | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------------------|--------------------------------|------------------------|---------------------------|-------------------------------|
| Trichloroethylene 79-01-6 | 100 lb | Х | Х | Х |
| Tetrachloroethylene 127-18-4 | | Х | Х | |

US State Regulations

<u>California Proposition 65</u> This product contains the following Proposition 65 chemicals.

| Chemical Name | California Proposition 65 |
|---------------------------------|---------------------------|
| Trichloroethylene 79-01-6 | Carcinogen |
| Tetrachloroethylene 127-18-4 | Carcinogen |

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---------------------------------|------------|---------------|--------------|
| Trichloroethylene 79-01-6 | Х | X | Х |
| Tetrachloroethylene 127-18-4 | Х | X | Х |

16. OTHER INFORMATION

| <u>NFPA</u> HMIS | Health Hazards 3 Health Hazards 3 | Flammability 1 Flammability 1 | Instability 0 Physical Hazards 0 | Special Hazards Not determined Personal Protection Not determined |
|--------------------------------|--|--|---|--|
| Revision Date Revision Note | 26-March-2015 New format | | | |

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet