



SAFETY DATA SHEET

Issue Date 02-Dec-2003

Revision Date 17-May-2013

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Foremost 582 Safety Solvent II

Other Means of Identification

SDS # FM-004

UN/ID No UN1710
Product Code 582

Recommended Use of the Chemical and Restrictions on Use

Recommended Use Industrial 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 (901) 363-4340
Emergency Telephone 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-%
Aliphatic Hydrocarbon Solvent	64742-88-7	Proprietary
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

Symptoms	Liquid 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.
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Indication of any Immediate Medical Attention and Special Treatment Needed

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.
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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.
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Conditions for Safe Storage, Including 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 79-01-6	STEL: 25 ppm TWA: 10 ppm	TWA: 100 ppm (vacated) TWA: 50 ppm (vacated) TWA: 270 mg/m ³ (vacated) STEL: 200 ppm (vacated) STEL: 1080 mg/m ³ Ceiling: 200 ppm	IDLH: 1000 ppm
Tetrachloroethylene 127-18-4	STEL: 100 ppm TWA: 25 ppm	TWA: 100 ppm (vacated) TWA: 25 ppm (vacated) TWA: 170 mg/m ³ Ceiling: 200 ppm	IDLH: 150 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.
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Individual Protection Measures, such 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 Considerations	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	Liquid	Odor	Chlorinated
Appearance	Water white liquid	Odor Threshold	Not determined
Color	Colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	86.66 °C / 188 °F	
Flash Point	Not determined	
Evaporation Rate	Not established	
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	1.065	(1=Water)
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	

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.
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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.
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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
Aliphatic Hydrocarbon Solvent 64742-88-7	> 5000 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	> 5.28 mg/L (Rat) 4 h
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.
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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	X
Tetrachloroethylene 127-18-4	A3	Group 2A	Reasonably Anticipated	X

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.
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Aspiration Hazard	May be fatal if swallowed and enters airways.
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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
Aliphatic Hydrocarbon Solvent 64742-88-7	450: 96 h Pseudokirchneriella subcapitata mg/L EC50	800: 96 h Pimephales promelas mg/L LC50 static		100: 48 h Daphnia magna mg/L EC50

Trichloroethylene 79-01-6	450: 96 h <i>Desmodesmus subspicatus</i> mg/L EC50 175: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	31.4 - 71.8: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 39 - 54: 96 h <i>Lepomis macrochirus</i> 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 <i>Daphnia magna</i> mg/L EC50
Tetrachloroethylene 127-18-4	500: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	12.4 - 14.4: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 8.6 - 13.5: 96 h <i>Pimephales promelas</i> mg/L LC50 static 11.0 - 15.0: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 4.73 - 5.27: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through	EC50 = 100 mg/L 24 h EC50 = 112 mg/L 24 h EC50 = 120.0 mg/L 30 min	6.1 - 9.0: 48 h <i>Daphnia magna</i> mg/L EC50 Static

Persistence and Degradability

Not determined

Bioaccumulation

Not determined

Mobility

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

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 79-01-6	Category I - Volatiles		Toxic waste 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.	
Tetrachloroethylene 127-18-4	Category I - Volatiles		Toxic waste 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	Toxic
Tetrachloroethylene 127-18-4	Toxic

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN1710
 Proper Shipping Name Trichloroethylene Solution
 Hazard Class 6.1
 Packing Group III

IATA

UN/ID No UN1710
 Proper Shipping Name Trichloroethylene Solution
 Hazard Class 6.1
 Packing Group III

IMDG

UN/ID No UN1710
 Proper Shipping Name Trichloroethylene Solution

Hazard Class 6.1
Packing Group III

15. REGULATORY INFORMATION

International Inventories

Not Determined

Legend:

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

DSL/NDL - 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 79-01-6	100 lb 1 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ
Tetrachloroethylene 127-18-4	100 lb 1 lb		RQ 100 lb final RQ 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	X	X	X
Tetrachloroethylene 127-18-4		X	X	

US State Regulations

California Proposition 65

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
Aliphatic Hydrocarbon Solvent 64742-88-7	X		
Trichloroethylene 79-01-6	X	X	X
Tetrachloroethylene 127-18-4	X	X	X

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Special Hazards
	3	1	0	Not determined
HMIS	Health Hazards	Flammability	Physical Hazards	Personal Protection
	3	1	0	Not determined

Issue Date 02-Dec-2003
Revision Date 17-May-2013
Revision Note 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