

MATERIAL SAFETY DATA SHEET

CARTAFIX SWE LIQ RETENTION AGENT

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Substance key: CLT260802-V1
Version : 1 - / USA

Revision Date: 03/19/2004
Date of printing :04/05/2004

Section 01 - Product Information

Information of the substance/preparation:

Textile, Leather, and Paper Chemicals
Product Safety 1-704-331-7710

Emergency tel. number: +1 800-424-9300 CHEMTREC

Trade name: CARTAFIX SWE LIQ
Material number: 155515
CAS number: 70893-01-5
Alpha Code: SAN-SWE
Synonyms: Guanidine, Cyano-, Polymer With 1,2-Ethanediamine,
N-(2-Aminoethyl)-, Hydrochloride Salt
Formula: (C₄H₁₃N₃.C₂H₄N₄)X.HCl
Primary product use: Data Not Yet Available
Chemical family: Cationic Resinous Compound

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

| Component | CAS-no. (Trade secret no.) | Concentration |
|-------------------|----------------------------|---------------|
| Diethylene glycol | 111-46-6 | 8 - 12 % |

Section 03 - Hazards identification

Expected Route of entry:

Inhalation: yes
Skin contact: yes
Eye contact: yes
Ingestion: yes
Skin absorption: no

Health effects of exposure:

Diethylene Glycol (111-46-6)

Diethylene Glycol: Highly toxic by ingestion. May cause pain or discomfort in the abdomen, pain in the lumbar region, nausea, vomiting, diarrhea, dizziness, drowsiness, decreased urine production, malaise, and loss of consciousness. Severe kidney damage may occur which can be fatal if not promptly and adequately treated. Liver injury may also occur. No evidence of adverse health effects from skin adsorption. Short-term adverse health effects are not expected from exposure to vapor generated at ambient temperature. Aerosol or vapor formed by heating

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the material may cause nausea and headache. No evidence of adverse effects from skin contact. Eye contact may cause mild discomfort. Excess redness of the conjunctiva may occur. Repeated overexposure by inhalation of mist may produce headache, nausea, and dizziness.

Known effects on other illnesses: No known effects on other illnesses for this product.
Listed carcinogen: IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 2*

Flammability: 1

Reactivity: 0

Personal protection: D

Section 04 - First aid measures

After inhalation:

Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:

Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:

Immediately flush eyes with running water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek prompt medical attention if redness or irritation occurs.

After ingestion:

If ingested, seek medical assistance immediately.

Advice to doctor / Treatment:

None known.

Section 05 - Fire fighting measures

Flashpoint: 210 °F
Method: closed cup

Lower explosion limit: not determined

Upper explosion limit: not determined

Ignition temperature: not determined

Hazardous combustion products:

Thermal decomposition may produce oxides of carbon and nitrogen.

Extinguishing media: water
Alcohol Foam
carbon dioxide
Dry Chemical

Special fire fighting procedure:

None known

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Unusual fire and explosion hazards: None known.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Contain spill. Small spills may be flushed to the sewer or absorbed on suitable absorbants. Larger spills should be collected as liquid or absorbed. Clean-up may be accomplished by flushing with water if appropriate or remove contaminated soils. place in appropriate containers.

Section 07 - Handling and storage

Advice on safe handling:

Avoid getting on skin or in eyes when handling product.

Further info on storage conditions:

Keep containers closed.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

| Component | CAS number: | Regulatory list | Type of value | Value 1 | Value 2 |
|-------------------|-------------|---------------------|------------------------------|---------|----------|
| DIETHYLENE GLYCOL | 111-46-6 | US WEEL Guides Data | Time Weighted Average (TWA): | | 10 mg/m3 |

Respiratory protection: None required in normal use of product.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Chemical splash goggles.

Other protective equipment: None known

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

IDLH:

Not Determined

Section 09 - Physical and chemical properties

Form: Liquid
Color: Clear, pale yellow
Odor: Mild odor.
pH: 7.0 - 8.0
Solubility in water: miscible

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Melting point : not determined
Freezing point : not determined
Boiling point : not determined
Loss on drying: 53 - 54 %

Section 10 - Stability and reactivity

Chemical stability: Stable.
Hazardous Polymerization: Will not occur.
Conditions to avoid: None known.
Conditions to avoid: Strong oxidizing agents.

Section 11 - Toxicological information

Product information:
Acute oral toxicity: LD50 2,260 mg/kg (rat)
Skin Irritation: Mildly irritating (rabbit)
Eye irritation: Moderate irritant (rabbit)

Section 12 - Ecological information

Product information:
Fish toxicity: LC50 3.2 mg/l (goldfish)

Section 13 - Disposal considerations

Waste disposal information:
Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities may be incinerated or landfilled after solidification in permitted systems.
RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT not restricted
IATA not restricted
IMDG not restricted

Section 15 - Regulatory information

TSCA Status:

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All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

| | |
|------------------|-----|
| Reactive hazard: | no |
| Pressure hazard: | no |
| Fire hazard: | no |
| Immediate/acute: | yes |
| Delayed/chronic: | yes |

SARA 313 Information:

This product does not contain any toxic chemical listed under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

Clean Water Act:

Contains no known priority pollutants at concentrations greater than 0.1%.

Volatile organic compounds VOC:

Content VOC (weight-%): 0.3 %

FDA:

Permitted for Use per Section: NONE

This product is not registered with the FDA.

Section 16 - Other information

Other precautions:

None Known

Label information:

CAUTION!

MAY CAUSE IRRITATION TO EYES AND SKIN HARMFUL IF SWALLOWED
REPEATED EXPOSURES MAY RESULT IN LIVER OR KIDNEY DAMAGE.

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wear proper protective equipment. Keep container closed when not in use. Wash thoroughly after handling. Avoid contact with product. Wear proper protective equipment. Use with adequate ventilation and/or proper respiratory protection. Wash thoroughly after handling. Keep container closed when not in use.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product

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