

Material Safety Data Sheet

X-Tenda Coat™ Plus-K

MSDS No.310546

Date of Preparation: 02/25/2009

Revision: 002

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: X-Tenda Coat™Plus-K

Chemical Formula: Mixture

CAS Number: N/A

Other Designations: N/A

General Use: Roof Coating

Manufacturer: Carlisle SynTec Incorporated, 1285 Ritner Highway, Carlisle, PA 17013, Phone: 800-4SYNTEC

Emergency Phone Number: CHEMTREC (USA) 800-424-9300

Section 2 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Appearance: Highly thixotropic liquid with faint ammonia-like smell

WARNING- Skin and eye irritant, may cause respiratory irritation.

HMIS

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R 0

PPE† I

†Sec. 8

Potential Health Effects

Primary Entry Routes: Skin contact, inhalation, ingestion.

Target Organs: None known

Acute Effects:

Inhalation: Vapor or spray mist can cause headache, nausea and irritation of the nose, throat and lungs.

Eye: Contact with vapor and/or spray mist may irritate the eyes. Eye contact with liquid may result in severe irritation.

Skin: Moderately irritating to the skin.

Ingestion: May cause abdominal pain, nausea and vomiting.

Carcinogenicity: NTP, and OSHA do not list this product as a carcinogen.

This product contains Titanium Dioxide, which is listed by IARC in Group 2 – Possibly carcinogenic in humans.

Medical Conditions Aggravated by Long-Term Exposure: None known.

Chronic Effects: None known.

Section 3 – Ingredient Information

| Hazardous Ingredients | CAS Number | % wt |
|---|-------------------------------------|------------------------|
| Fluoropolymer | MIXTURE | 30-60 |
| Titanium Dioxide (contains Aluminum hydroxide, CAS# 21645-51-2 – no exposure limits established) | 13463-67-7 | 10-30 |
| Acrylic polymer (contains 0.2% max. Aqua Ammonia CAS# 1336-21-6) | MIXTURE | 7-13 |
| Urethane Polymer Dispersion (contains 2-Pyrrolidinone, 1-methyl) (contains Triethylamine) | MIXTURE (872-50-4) (121-44-8) | 7-13 (6.8) (1.2) |
| 2,2,4-Trimethyl-1,3-Pentanediol Monoisobutyrate | 25265-77-40 | 3-7 |
| Additional Ingredients | CAS Number | % wt |
| Water | 7732-18-5 | 10-30 |

Section 4 - First Aid Measures

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing.

Eye Contact: Immediately flush eyes with running water for at least 15 minutes. If redness, itching or a burning sensation develops, see a physician.

Skin Contact: Remove contaminated clothing/shoes and wipe off excess from skin. Wash exposed area with soap and water. If redness, itching or a burning sensation develops, get medical attention.

Ingestion: Do not induce vomiting. If swallowed, give 2 glasses of water to drink. Get medical attention immediately.

Inhalation: Remove from source of exposure and into fresh air. If symptoms persist consult a physician immediately. If not breathing, give artificial respiration and call emergency medical services immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians: When heated to 600° F and above, thermal decomposition occurs. The Hexafluoropropylene-vinylidene fluoride in this product may release Hydrogen Fluoride gas (HF) under these conditions. Hydrogen Fluoride is extremely corrosive and can cause severe burns, which may not be immediately visible or painful. Exposure to HF may be fatal if absorbed through the skin, inhaled or swallowed. Patients that have been exposed to HF should be monitored for hypocalcemia, delayed pulmonary edema and edema of the upper respiratory tract.

Section 5 - Fire-Fighting Measures

Flash Point: 248°F/(120°C)

Burning Rate: Not available.

Autoignition Temperature: Not available.

Lower Flammable Limit: 0.62

Upper Flammable Limit: 4.24

Flammability Classification: Not flammable.

Extinguishing Media: Use dry chemical, carbon dioxide, foam, water fog or spray as appropriate for surrounding fire.

Unusual Fire or Explosion Hazards: None known

Hazardous Combustion Products: Toxic gases or vapors, such as carbon monoxide, carbon dioxide, or oxides of nitrogen may be released in a fire.

Fire-Fighting Instructions: Do not enter any enclosed or confined fire space without full protective equipment, including self-contained breathing apparatus (pressure-demand MSHA/NIOSH approved or equivalent) to protect against the hazardous effects of combustion products and oxygen deficiency.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure-demand or positive-pressure mode.



Section 6 - Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8.

Spill /Leak Procedures:

Small Spills: Dike and absorb with inert material such as sand. If spill is in a confined area ventilate the area well. Remove all liquid by absorbing with sand, saw dust or commercial absorbent, then scoop up and place in containers for proper disposal. Keep spills and cleaning runoff out of the municipal sewers and open bodies of water. Decontaminate all clothing and the spill area with a detergent and large amounts of water. **If spill occurs near an air inlet, or inside, turn off all heating and air-conditioning equipment to avoid contaminating other areas of building.**

Large Spills: Use same procedure as small spill.

Containment: See Small Spills procedure.

Cleanup: See Small Spills procedure.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Avoid skin or eye contact. Avoid prolonged or repeated breathing of vapors and mists. If spilled on clothing, launder before reuse. Do not take internally. Use only in a well ventilated area. Keep out of the reach of children.

Storage Requirements: Keep from freezing. Product will coagulate. Keep container tightly closed when not in use. Do not get in eyes, on skin or on clothing. Monomer vapors can be evolved when material is heated. Containers, even those that have been emptied, will retain product residue and vapors and are subject to proper waste disposal, (Section 13).

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 8 - Exposure Controls / Personal Protection

| Ingredient | OSHA PEL | | ACGIH TLV | | NIOSH | |
|--|--|---------------------|----------------------|---------------------|---------------------|-------------------------|
| | TWA | STEL | TWA | STEL | TWA | IDLH |
| Aqueous Acrylic Emulsion Ammonia | None Established | 50 ppm | 25 ppm | 35 ppm | None Established | None Established |
| Fluoropolymer (limit for Hydrogen fluoride HF) | None Established | None Established | 2 ppm | None Established | None Established | None Established |
| Urethane Polymer Dispersion -2-Pyrrolidinone, 1-methyl - Triethylamine | 100 ppm (manufacturer recommendation) 10 ppm | 15 ppm | 1 ppm | 3 ppm | None Established | None Established |
| Titanium Dioxide | 15 mg/m ³ c | None Established | 10 mg/m ³ | None Established | None Established | 5,000 mg/m ³ |

Engineering Controls: Use local exhaust ventilation with a minimum capture velocity of 100 ft/min (.05 m. sec.) at the point of vapor evolution. Refer to the current edition of industrial ventilation: a manual of recommended practice published by the American Conference of Governmental Industrial Hygienists for Information on the Design, Installation, Use and Maintenance of Exhaust Systems.

Administrative Controls: None required.

Respiratory Protection: A respirator protection that meets OSHA respirator regulations (1910.134) and ANSI (Z88.2) or applicable federal/provincial requirements must be followed whenever workplace conditions warrant a respirator's use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Protective Clothing/Equipment: The use of nitrile rubber gloves is recommended to prevent skin contact. Use Chemical Goggles if splashing may occur. During spray operations wear a face shield, unless a full-face piece respirator is used. Do not wear contact lenses as they may contribute to the severity of injury to the eye from exposure to liquid and/or vapors and spray mist.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance and Odor: White liquid with a faint ammonia-like odor

Flash Point: 248°F/(120°C)

Burning Rate: Not available.

Autoignition Temperature: Not available.

Lower Flammable Limit: 0.62

Upper Flammable Limit: 4.24

Vapor Pressure: <17 mm Hg at 68 °F (20 °C) water

Vapor Density (Air=1): Lighter than air

Water Solubility: Miscible

pH: Neutral

Boiling Range: 193°F(89.4°C) to 471°F(243°C)

Freezing/Melting Point: NA

VOC EPA24: 192 g/l (coating)
77 g/l (material)

Weight Solids: 45% ± 2%

Volume Solids: 31% ± 2%

Specific Gravity (H₂O=1, at 4 °C): 1.2493

Flash Point: 248°F/(120°C)

Burning Rate: Not available.

Autoignition Temperature: Not available.

Lower Flammable Limit: 0.62

Upper Flammable Limit: 4.24

Section 10 - Stability and Reactivity

Stability: Stable.

Possibility of Hazardous Reactions: Will not occur.

Chemical Incompatibilities: Avoid strong oxidizing agents, such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite, and strong bases.

Conditions to Avoid: Avoid storage in extreme heat or cold.

Hazardous Decomposition Products: Thermal decomposition may yield hydrogen fluoride gas, which can cause severe burns, as well as acrylic monomer, carbon monoxide and carbon dioxide. Unidentified organic compounds in fumes and smoke may be formed during combustion.

Section 11 - Toxicological Information

Toxicity Data:

Eye Effects: Hexafluoropropylene-vinylidene fluoride copolymer- Rabbit: Slightly irritating.

Skin Effects: Hexafluoropropylene-vinylidene fluoride copolymer- Rabbit: Slightly irritating. Repeated contact with cured copolymer produced irritation in rabbits.

Titanium Dioxide: Dermal LD50 (rabbit) >10 g/kg.

Ingestion: Hexafluoropropylene-vinylidene fluoride copolymer: Reversible liver effects were observed in rats given a diet containing 25% of the uncured copolymer for 2 weeks.

Titanium Dioxide: Oral LD50 (rat) >25 g/kg.

Inhalation Effects: Aluminum trihydroxide: Breathing airborne nuisance dust can cause chronic breathing difficulty.

Titanium dioxide: LC50 (rat) >6.82 mg/l (4 hr)

Acute Oral Effects: Nausea, abdominal pain, irritation of the throat.

Acute Inhalation effects: Headache and irritation of the nose, throat, and lungs.

Acute Skin/Eye Effects: Skin and eye irritation.

Chronic Effects: No data available.

Carcinogenicity: No data available.

Mutagenicity: No data available.

Teratogenicity: No data available.

Reproductive: No data available

Section 12 - Ecological Information

Ecotoxicity:

Titanium Dioxide CAS# 13463-67-7; 96 Hr LC50 (Fathead Minnows) > 1,000 mg/l
This product is not expected to be biodegradable. Avoid spillage into the environment.

Soil Absorption/Mobility: Product spills on porous surfaces can contaminate groundwater. This product is not expected to be biodegradable.

Section 13 - Disposal Considerations

Disposal: Dispose of unused product or contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures. Incineration is acceptable and the preferred method of disposal, however; nitrogen oxide emissions controls may be required to meet specifications. Chemical and biological degradation is possible. Empty containers will retain product residue and vapors and are subject to proper waste disposal, as above.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Not a DOT regulated material. (United States)

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

CERCLA Hazardous Substance (40 CFR 302.4) listed/unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112

CERCLA Reportable Quantity (RQ): None Known.

SARA 311/312 Codes:

SARA Toxic Release Chemical (40 CFR 372.65):

2-Pyrrolidinone, 1-methyl CAS# 872-50-4 (see Section 3)

Triethylamine CAS# 121-44-8 (see Section 3)

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed

TSCA : The components of this product are listed or excluded from listing on the US Toxic Substances Control Act (TSCA) chemical substance inventory. Mixtures shall be assumed to present the same health hazards as do the components that comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it has a component in concentrations of 0.1 percent or greater. The remaining percentage of unspecified ingredients, if any, are not contained in above DeMinimis concentrations and/or are believed to be non-hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

TSCA Flags:

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance (29CFR 1910.1200)

Canadian WHMIS: This product is not listed in any division, class, or subdivision.

This product contains the following in recordable amounts: Titanium Dioxide CAS# 13463-67-7

WHMIS Classification: D2A – Very Toxic

Canadian Environmental Protection Act (CEPA): No Information.

EINECS: All of the components of this product are listed in the EINECS inventory or are exempt from notification requirements.

State Regulations:

California Proposition 65: These chemicals are listed in the California Proposition 65 to be carcinogens or reproductive toxicants: 2-Pyrrolidinone, 1-methyl CAS# 872-50-4

In addition to the above named chemical, this product may contain trace amounts of chemicals known to the State of California, to cause Cancer or Birth Defects and other Reproductive harm.

Delaware: The following chemicals are listed on the Delaware Air Quality Management list:

Aqua Ammonia, CAS # 1336-21-6; DRQ 1000#

2-Pyrrolidinone, 1-methyl, CAS# 872-50-4; RQ 100 (RQ State - State requirement differs from Federal)

Triethylamine, CAS# 121-44-8; DRQ 5000 (RQ State – Federal Regulations Apply)

Idaho:

Dipropylene glycol monomethyl ether, CAS# 34590-94-8

Idaho Air Pollutant List:

Title 585 – AAC: 30

Title 585 – EL: 40

Title 585 – OEL: 600

Triethylamine, CAS# 121-44-8

Idaho Air Pollutant List:

Title 585 – AAC: 0.2

Title 585 – EL: 0.27

Title 585 – OEL: 4.0

Massachusetts Haz substance codes:

Aqua Ammonia, CAS # 1336-21-6 Substance Code: F8

Dipropylene glycol monomethyl ether, CAS# 34590-94-8 Substance Codes: 2, 4, F8

Calcium Carbonate, CAS# 1317-65-3 Substance Codes: 4

Titanium Dioxide, CAS# 13463-67-7 Substance Codes: 4

2-Pyrrolidinone, 1-methyl, CAS# 872-50-4 Substance Codes: 6

Triethylamine, CAS# 121-44-8 Substance Codes: 2, 4, 5, 6, F8

Minnesota Haz Substance:

Calcium Carbonate, CAS# 1317-65-3 Codes: A, Carcinogen? No

Titanium Dioxide, CAS# 13463-67-7 Codes: A, Carcinogen? No

2-Pyrrolidinone, 1-methyl, CAS# 872-50-4 Codes: I, Status: Title III. TRI.

Triethylamine, CAS# 121-44-8 Codes: AO, Ratings: 9.82, Status: Air Pollutant. Title III. TRI.

Dipropylene glycol monomethyl ether, CAS# 34590-94-8 Codes: AO

New Jersey:

New Jersey Extraordinarily Hazardous Substance:

Aqua Ammonia, CAS# 1336-21-6 RTK Substance number: 0084

New Jersey RTK Hazardous Substances

2-Pyrrolidinone, 1-methyl, CAS# 872-50-4 Substance number: 3716

Triethylamine, CAS# 121-44-8 Substance number: 1907, DOT: 1296

New York:

Aqua Ammonia, CAS# 1336-21-6 RQ Air: 1000, RQ Land/Water 100

Triethylamine, CAS# 121-44-8 RQ Air: 5000, RQ Land: 1

Pennsylvania Haz. Substance code:

Ammonia Hydroxide (Aqua Ammonia), CAS# 1336-21-6 Code: E

N-Methyl Pyrrolidone (2-Pyrrolidinone, 1-methyl), CAS# 872-50-4 Code: --

Dipropylene glycol monomethyl ether, CAS# 34590-94-8 Code: --

Calcium Carbonate, CAS# 1317-65-3 Code: E

Triethylamine, CAS# 121-44-8 Code: E

Titanium Dioxide, CAS# 13463-67-7 Code: --

Washington Air Contaminant:

Dipropylene glycol monomethyl ether, CAS# 34590-94-8

| | | |
|--|-----|----------------------|
| | ppm | (mg/m ³) |
|--|-----|----------------------|

| | | |
|------|-----|-----|
| TWA: | 100 | 600 |
|------|-----|-----|

| | | |
|-------|-----|-----|
| STEL: | 150 | 900 |
|-------|-----|-----|

Calcium Carbonate (Respirable), CAS# 1317-65-3

| | | |
|--|-----|----------------------|
| | ppm | (mg/m ³) |
|--|-----|----------------------|

| | | |
|-----|------|---|
| TWA | Unk. | 5 |
|-----|------|---|

Titanium Dioxide (Total dust), CAS# 13463-67-7

| | | |
|--|-----|----------------------|
| | ppm | (mg/m ³) |
|--|-----|----------------------|

| | | |
|-----|------|----|
| TWA | Unk. | 10 |
|-----|------|----|

Triethylamine, CAS# 121-44-8

| | | |
|--|-----|----------------------|
| | ppm | (mg/m ³) |
|--|-----|----------------------|

| | | |
|------|----|----|
| TWA: | 10 | 40 |
|------|----|----|

| | | |
|-------|----|----|
| STEL: | 15 | 60 |
|-------|----|----|

Wisconsin:

Wisconsin Hazardous Air Contaminant List:

Triethylamine, CAS# 121-44-8 Table A.

West Virginia:

The following chemicals are on the West Virginia Toxic Air Pollutants list:

Ammonium Hydroxide (Aqua Ammonia), CAS# 1336-21-6

Dipropylene glycol monomethyl ether, CAS# 34590-94-8

Calcium Carbonate, CAS# 1317-65-3

Titanium Dioxide, CAS# 13463-67-7

2-Pyrrolidinone, 1-methyl, CAS# 872-50-4

Triethylamine, CAS# 121-44-8

Section 16 - Other Information

Prepared By: Research and Development

Revision Notes: Name change, general update

Additional Hazard Rating Systems:

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