MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

| 1, 2 | |
|---------------------------------|--|
| Material name | IdeaPaint CREATE CLEAR THAT (part A) |
| Version # | 03 |
| Issue date | 08-29-2012 |
| Revision date | 09-13-2012 |
| Supersedes date | 08-29-2012 |
| CAS # | Mixture |
| Product code | IdeaPaint CREATE CLEAR- THAT (part A) |
| Product use | Dry erase coating. |
| Manufacturer/Supplier | IdeaPaint 290 Eliot Street, 2nd Floor, Ashland, MA 01721 |
| Telephone number | 617.714.1050 |
| Emergency | +1.866.519.4752 (US, Canada, Mexico) |
| | +1-760-476-3962 (US, Canada, Mexico) Access Code: 333641 |
| 2. Hazards Identification | |
| Physical state | Liquid. |
| Appearance | Transparent liquid |
| Emergency overview | WARNING |
| | May be harmful if swallowed. Irritating to eyes and skin. May cause allergic skin reaction. |
| OSHA regulatory status | This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication). |
| Potential health effects | |
| Routes of exposure | Inhalation. Ingestion. Skin contact. Eye contact. |
| Eyes | Irritating to eyes. |
| Skin | Irritating to skin. |
| Inhalation | Prolonged inhalation may be harmful. |
| Ingestion | Harmful if swallowed. Irritating to mouth, throat, and stomach. |
| Target organs | Eyes. Skin. |
| Chronic effects | Preparation contains an epoxy resin, which may cause sensitization and development of allergy. Possible reproductive hazard - contains material that may cause adverse reproductive effects. Danger of adverse health effects by prolonged exposure. |
| Signs and symptoms | Skin irritation. Irritation of eyes and mucous membranes. Sensitization. |
| Potential environmental effects | Toxic to aquatic organisms. May cause long-term adverse effects in the environment. |

3. Composition / Information on Ingredients

| Components | CAS # | Percent |
|---|------------|---------|
| Siloxanes and silicones, di-me, methoxy ph polymers with ph silsesquioxanes, methoxy-terminated | 68957-04-0 | 40-70 |
| Epoxy resin, MW <= 700 | 30583-72-3 | 10-30 |
| Propylene carbonate | 108-32-7 | 3-8 |
| Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | 41556-26-7 | 1-5 |
| DibutyItin di(acetate) | 1067-33-0 | 1-5 |
| Silicon dioxide | 7631-86-9 | 0.3-<1 |
| Ethanol | 64-17-5 | 0.1-1 |
| Ethylbenzene | 100-41-4 | 0.1-1 |

| Components | CAS # Percent |
|--|--|
| Xylene | 1330-20-7 0.1-1 |
| Composition comments | All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. |
| 4. First Aid Measures | |
| First aid procedures | |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids wide apart. Get medical attention if irritation develops or persists. |
| Skin contact | Remove contaminated clothes and rinse skin thoroughly with water for at least 15 minutes. Get medical attention if irritation develops or persists. |
| Inhalation | If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathin Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled th substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately. |
| Ingestion | Have victim rinse mouth thoroughly with water. Do not induce vomiting without advice from pois control center. Do not use mouth-to-mouth method if victim ingested the substance. |
| Notes to physician | Treat symptomatically. |
| General advice | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |
| 5. Fire Fighting Measures | |
| Flammable properties | The product is not flammable. |
| Extinguishing media | |
| Suitable extinguishing media | Carbon dioxide, regular foam, dry chemical, water spray, or water fog. |
| Unsuitable extinguishing media | None known. |
| Protection of firefighters | |
| Specific hazards arising from the chemical | Fire or high temperatures create: Carbon oxides. Nitrogen oxides. Metal oxides. |
| Protective equipment and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Fire fighting equipment/instructions | Move containers from fire area if you can do it without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Specific methods | Move container from fire area if it can be done without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. |
| 6. Accidental Release Mea | isures |
| Personal precautions | Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Avoid inhalation of vapors and contact with skin and eyes. Wear protective clothing as described in Section 8 of this MSDS. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses o onto the ground. |
| Methods for cleaning up | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. |
| | Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. |
| | Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. |

7. Handling and Storage

| | 0 | 0 | |
|----------|---|---|---|
| Handling | | | Use Personal Protective Equipment recommended in section 8 of the MSDS. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Persons with epoxy allergy should not work with this product. Avoid inhalation of vapors and contact with skin, eyes and clothing. Avoid release to the environment. Provide adequate ventilation. In case of inadequate ventilation, use respiratory protection. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not reuse this container. "Empty" containers retain product residue (liquid or vapor) and can be dangerous. |
| Storage | | | Store in accordance with local, regional, national, and international regulations. Store in tightly closed original container in a dry, cool and well-ventilated place. Protect from direct sunlight. Store away from incompatible materials. Keep away from food, drink and animal feeding stuffs. Do not store in unlabelled containers. Keep container tightly closed in a dry and well-ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate container to avoid environmental contamination. Store at temperature below 49°C. |
| ~ - | | | |

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

| Components | Туре | Value | |
|---|------|-----------|--|
| Dibutyltin di(acetate) (CAS 1067-33-0) | STEL | 0.2 mg/m3 | |
| | TWA | 0.1 mg/m3 | |
| Ethanol (CAS 64-17-5) | STEL | 1000 ppm | |
| Ethylbenzene (CAS 100-41-4) | TWA | 20 ppm | |
| Xylene (CAS 1330-20-7) | STEL | 150 ppm | |
| | TWA | 100 ppm | |

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components | Туре | Value | |
|--|---|---|--|
| Dibutyltin di(acetate) (CAS 1067-33-0) | PEL | 0.1 mg/m3 | |
| Ethanol (CAS 64-17-5) | PEL | 1900 mg/m3 | |
| | | 1000 ppm | |
| Ethylbenzene (CAS 100-41-4) | PEL | 435 mg/m3 | |
| | | 100 ppm | |
| Xylene (CAS 1330-20-7) | PEL | 435 mg/m3 | |
| | | 100 ppm | |
| US. OSHA Table Z-3 (29 CF | R 1910.1000) | | |
| Components | Туре | Value | |
| Silicon dioxide (CAS 7631-86-9) | TWA | 0.8 mg/m3 | |
| | | 20 mppcf | |
| gineering controls | Ensure adequate ventilation, especially in confined areas. Provide easy access to water supply and eye wash facilities. | | |
| sonal protective equipment | | | |
| Eye / face protection | Chemical goggles are recommended. | | |
| Skin protection | Wear protective gloves. Butyl rubber gloves are recommended. Wear suitable protective clothing. | | |
| Respiratory protection | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. | | |
| General hygiene | Always observe good personal hygi | ene measures, such as washing after handling the material | |

General hygiene
considerationsAlways observe good personal hygiene measures, such as washing after handling the material
and before eating, drinking, and/or smoking. Routinely wash work clothing to remove
contaminants. Discard contaminated footwear that cannot be cleaned. Do not eat, drink or smoke
when using the product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

| Appearance | Transparent liquid |
|---|---------------------------------|
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Clear. |
| Odor | Mild. |
| Odor threshold | Not available. |
| рН | Not available. |
| Vapor pressure | 0.2 hPa (20°C/68°F) |
| Vapor density | Not available. |
| Boiling point | > 220 °F (> 104.4 °C) |
| Melting point/Freezing point | Not available. |
| Solubility (water) | Insoluble. |
| Specific gravity | 9.5 lbs/gal |
| Flash point | > 190 °F (> 87.8 °C) Closed Cup |
| Flammability limits in air, upper, % by volume | Not available. |
| Flammability limits in air, lower, % by volume | Not available. |
| Auto-ignition temperature | > 572 °F (> 300 °C) |
| VOC | < 25 g/l |
| Evaporation rate | 32 BuAc |
| Partition coefficient (n-octanol/water) | Not available. |

10. Chemical Stability & Reactivity Information

| Chemical stability | Stable at normal conditions. |
|---------------------------------------|--|
| Conditions to avoid | Heat. |
| Incompatible materials | Water. Acids. Oxidizing material. Strong alkaline. |
| Hazardous decomposition products | None in particular. |
| Possibility of hazardous reactions | Hazardous polymerization does not occur. |

11. Toxicological Information

| Toxicological data | | | |
|-------------------------------------|---|--|--|
| Components | Species | Test Results | |
| Dibutyltin di(acetate) (CAS 1067-33 | -0) | | |
| Acute | | | |
| Oral | | | |
| LD50 | Mouse | 109.7 mg/kg | |
| | Rat | 32 mg/kg | |
| Sensitization | May cause sensitization by sk | in contact. | |
| Acute effects | Harmful if swallowed. Irritating to eyes and skin. | | |
| Local effects | Irritating to eyes and skin. | | |
| US. ACGIH Threshold Limit V | alues | | |
| Dibutyltin di(acetate) (CAS | 1067-33-0) | Can be absorbed through the skin. | |
| Chronic effects | Preparation contains an epoxy | resin, which may cause sensitization and development of allergy. | |
| Carcinogenicity | Hazardous by OSHA criteria. Hazardous by WHMIS criteria. Cancer hazard. | | |
| ACGIH Carcinogens | | | |
| Dibutyltin di(acetate) (CAS | 1067-33-0) | A4 Not classifiable as a human carcinogen. | |

| Ethanol (CAS 64-17-5) | | A3 Confirmed animal carcinogen with unknown relevance to humans. |
|--|--|---|
| Ethylbenzene (CAS 100-41-4) | | A3 Confirmed animal carcinogen with unknown relevance to humans. |
| Xylene (CAS 1330-20-7) | Evaluation of Carcinogenicity | A4 Not classifiable as a human carcinogen. |
| Ethylbenzene (CAS 100-4 | | 2B Possibly carcinogenic to humans. |
| Silicon dioxide (CAS 7631 | -86-9) | 3 Not classifiable as to carcinogenicity to humans. |
| Xylene (CAS 1330-20-7) US NTP Report on Carcinog | ens: Known carcinogen | 3 Not classifiable as to carcinogenicity to humans. |
| Ethanol (CAS 64-17-5) | Ũ | Known To Be Human Carcinogen. |
| Mutagenicity | No data available. | |
| Reproductive effects | May damage fertility or the unl | |
| Symptoms and target organs | | and mucous membranes. Sensitization. |
| Further information | No other specific acute or chro | onic health impact noted. |
| 12. Ecological Information | | |
| Ecotoxicity | Toxic to aquatic organisms, ma | ay cause long-term adverse effects in the aquatic environment. |
| Persistence and degradability | No data is available on the de | gradability of this product. |
| Bioaccumulation / Accumulation | Not available. | |
| Partition coefficient | Not available. | 4.07 |
| Dibutyltin di(acetate) Mobility in environmental | Not available. | 1.27 |
| media | | |
| 13. Disposal Consideration | าร | |
| Waste codes | | |
| US RCRA Hazardous Waste | U List: Reference | |
| Xylene (CAS 1330-20-7) Waste from residues / unused | Do not allow this material to dr | U239 ain into sewers/water supplies. Dispose in accordance with all |
| products | applicable regulations. | an into severs/water supplies. Dispose in accordance with an |
| Contaminated packaging | Empty containers should be ta | aken to an approved waste handling site for recycling or disposal. |
| 14. Transport Information | | |
| DOT | | |
| Basic shipping requirements | S: | |
| UN number Proper shipping name | UN3082 Environmentally bazardous su | ıbstances, liquid, n.o.s. (Bis(1,2,2,6,6-pentamethyl-4-piperidyl) |
| Proper shipping hame | sebacate, Dibutyltin di(acetate | |
| Hazard class Packing group Environmental | 9 | |
| hazards | | |
| Marine pollutant | Yes | |
| Additional information: | | |
| Special provisions Packaging exceptions | 8, 146, 335, IB3, T4, TP1, TP2 155 | 29 |
| Packaging non bulk | 203 | |
| Packaging bulk IATA | 241 | |
| UN number | UN3082 | |
| UN proper shipping name | | ubstance, liquid, n.o.s. (Bis(1,2,2,6,6-pentamethyl-4-piperidyl) e)) |
| Transport hazard class(es) | | |
| | 9 | |
| Packing group Environmental hazards | 9 III Yes | |

IMDG

| IMDG | | |
|--|---|-----------|
| UN number UN proper shipping name | UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, Dibutyltin di(acetate)), MARINE POLLU | JTANT |
| Transport hazard class(es) Packing group Environmental hazards | 9 | |
| Marine pollutant EmS No. | Yes F-A, S-F | |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. | |
| 15. Regulatory Information | 1 | |
| US federal regulations | This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List. | |
| TSCA Section 12(b) Export N Not regulated. | Notification (40 CFR 707, Subpt. D) | |
| Clean Air Act (CAA) Section Ethylbenzene (CAS 100-4 Xylene (CAS 1330-20-7) | 112 Hazardous Air Pollutants (HAPs) List 41-4) ection 313 - Toxic Chemical: De minimis concentration | |
| Ethylbenzene (CAS 100-4 | | |
| Xylene (CAS 1330-20-7) | 1.0 % ection 313 - Toxic Chemical: Listed substance | |
| Ethylbenzene (CAS 100-4 Xylene (CAS 1330-20-7) | 41-4) Listed. Listed. | |
| CERCLA (Superfund) reportable | quantity | |
| Ethanol: 100 Ethylbenzene: 1000 Xylene: 100 | | |
| Superfund Amendments and Rea | authorization Act of 1986 (SARA) | |
| Hazard categories | Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No | |
| Section 302 extremely hazardous substance (40 CFR 355, Appendix A) | Νο | |
| Section 311/312 (40 CFR 370) | Yes | |
| Inventory status | | |
| Country(s) or region | Inventory name On inventory | |
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada Canada | Domestic Substances List (DSL) Non-Domestic Substances List (NDSL) | Yes No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | No |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | No |
| New Zealand | New Zealand Inventory | No |

| Country(s) or region Philippines | Inventory name Philippine Inventory of Chemi | cals and Chemical Substances | On inventory (yes/no)* No |
|-------------------------------------|---|---|------------------------------|
| | (PICCS) | | |
| United States & Puerto Rico | Toxic Substances Control Act | (TSCA) Inventory | Yes |
| *A "Yes" indicates this product cor | mplies with the inventory requireme | ents administered by the governing country(s) | |
| State regulations | WARNING: This product cont | tains a chemical known to the State of Calif | fornia to cause cancer. |
| US - California Hazardous S | ubstances (Director's): Listed | substance | |
| Dibutyltin di(acetate) (CAS | S 1067-33-0) | Listed. | |
| Ethanol (CAS 64-17-5) | | Listed. | |
| Ethylbenzene (CAS 100-4 | | Listed. | |
| Silicon dioxide (CAS 7631 | l-86-9) | Listed. | |
| Xylene (CAS 1330-20-7) | | Listed. | |
| US - California Proposition 6 | 65 - CRT: Listed date/Carcino | genic substance | |
| Ethanol (CAS 64-17-5) | | Listed: April 29, 2011 Carcinogenic. | |
| | | Listed: July 1, 1988 Carcinogenic. | |
| Ethylbenzene (CAS 100-4 | 11-4) | Listed: June 11, 2004 Carcinogenic. | |
| US - New Jersey RTK - Subs | tances: Listed substance | | |
| Ethanol (CAS 64-17-5) | | Listed. | |
| Ethylbenzene (CAS 100-4 | 11-4) | Listed. | |
| Silicon dioxide (CAS 7631 | | Listed. | |
| Xylene (CAS 1330-20-7) | | Listed. | |
| US. Massachusetts RTK - Su | ubstance List | | |
| Dibutyltin di(acetate) (CAS | S 1067-33-0) | Listed. | |
| Ethanol (CAS 64-17-5) | | Listed. | |
| Ethylbenzene (CAS 100-4 | 11-4) | Listed. | |
| Silicon dioxide (CAS 7631 | -86-9) | Listed. | |
| Xylene (CAS 1330-20-7) | | | |
| US. New Jersey Worker and | Community Right-to-Know A | ct | |
| Ethylbenzene (CAS 100-4 | 41-4) | 500 LBS | |
| Xylene (CAS 1330-20-7) | | | |
| US. Pennsylvania RTK - Haz | ardous Substances | | |
| Ethanol (CAS 64-17-5) | | Listed. | |
| Ethylbenzene (CAS 100-41-4) | | Listed. | |
| Silicon dioxide (CAS 7631-86-9) | | Listed. | |
| Xylene (CAS 1330-20-7) | | Listed. | |
| 16. Other Information | | | |
| Further information | HMIS® is a registered trade a | and service mark of the NPCA. | |
| HMIS® ratings | Health: 2* | | |

| HMIS® ratings | Health: 2* Flammability: 2 |
|---------------|--|
| NFPA ratings | Health: 2 Flammability: 2 Instability: |
| Disclaimer | The information in the sheet was written based on the best knowledge and experience currently available. |

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

| Material name | IdeaPaint CREATE CLEAR THIS (part B) |
|-----------------------|---|
| Version # | 02 |
| Issue date | 08-29-2012 |
| Revision date | 09-13-2012 |
| Supersedes date | 08-29-2012 |
| CAS # | Mixture |
| Product use | Dry erase coating - Part B. |
| Manufacturer/Supplier | IdeaPaint 290 Eliot Street, 2nd Floor, Ashland, MA 01721 |
| Telephone number | 617.714.1050 |
| Emergency | +1.866.519.4752 (US, Canada, Mexico) +1-760-476-3962 (US, Canada, Mexico) Access Code: 333641 |

2. Hazards Identification

| Physical state | Liquid. |
|---------------------------------|--|
| Appearance | Colorless to yellowish liquid. |
| Emergency overview | DANGER Causes skin, eye and digestive tract burns. Causes respiratory tract irritation. |
| OSHA regulatory status | This product is hazardous according to OSHA 29 CFR 1910.1200. |
| Potential health effects | |
| Routes of exposure | Eyes. Skin. Inhalation. Ingestion. |
| Eyes | Causes eye burns. |
| Skin | Causes skin burns. |
| Inhalation | Causes respiratory tract irritation. |
| Ingestion | Causes digestive tract burns. |
| Target organs | Eyes. Skin. Respiratory system. Digestive tract. |
| Chronic effects | None known. |
| Signs and symptoms | Contact with this material will cause burns to the skin, eyes and mucous membranes. |
| Potential environmental effects | The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. |

3. Composition / Information on Ingredients

| Components | | CAS # | Percent |
|------------------------------|--|----------------------------------|--------------------------|
| 3-Aminopropyltriethoxysilane | | 919-30-2 | 99 |
| Composition comments | All concentrations are in percent by weigh percent by volume. | nt unless ingredient is a gas. G | as concentrations are in |
| 4. First Aid Measures | | | |
| First aid procedures | | | |
| Eye contact | Immediately flush with plenty of water for at least 15 minutes occasionally lifting upper and lower eyelids. If easy to do, remove contact lenses. Call a physician or poison control center immediately. Get medical attention if symptoms persist. | | |
| Skin contact | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes. | | |
| Inhalation | Move injured person into fresh air and kee attention. | ep person calm under observat | ion. Get medical |

| Ingestion | Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Obtain medical attention and take along this material safety data sheet. | | |
|--|--|--|--|
| Notes to physician | Treat symptomatically. | | |
| 5. Fire Fighting Measures | | | |
| Flammable properties | No unusual fire or explosion hazards noted. | | |
| Extinguishing media | | | |
| Suitable extinguishing media | Carbon dioxide, regular foam, dry chemical, water spray, or water fog. | | |
| Unsuitable extinguishing media | None known. | | |
| Protection of firefighters | | | |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may be formed. | | |
| Protective equipment and precautions for firefighters | Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. | | |
| Fire fighting equipment/instructions | Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers exposed to heat with water spray and remove container, if no risk is involved. | | |
| Hazardous combustion products | Nitrogen oxides. | | |
| 6. Accidental Release Measures | | | |
| Personal precautions | Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate the area. Avoid any exposure. Wear suitable protective clothing. See Section 8 of the MSDS for Personal Protective Equipment. | | |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground unless authorized by permit. | | |
| Methods for cleaning up | Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal. | | |
| 7. Handling and Storage | | | |
| Handling | Do not breathe mist or vapor. Do not get in eyes, on skin, on clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. Wear approved safety goggles. Wear protective gloves and appropriate clothing to prevent skin contact. Observe good industrial hygiene practices. | | |
| Storage | Store in closed original container in a dry place. Store away from incompatible materials. | | |
| 8. Exposure Controls / Per | sonal Protection | | |
| Engineering controls | Provide adequate ventilation and minimize the risk of inhalation of vapors. Eye wash facilities and emergency shower must be available when handling this product. | | |
| Personal protective equipment | | | |
| Eye / face protection | Wear approved safety goggles. | | |
| Skin protection | Wear appropriate chemical resistant gloves. Butyl rubber gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. PVC gloves are recommended. Wear appropriate chemical resistant clothing to prevent any possibility of skin contact. | | |
| Respiratory protection | If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use. | | |
| General hygiene considerations | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. | | |

9. Physical & Chemical Properties

| 5 | 1 |
|---|---|
| Appearance | Colorless to yellowish liquid. |
| Physical state | Liquid. |
| Form | Liquid. |
| Color | Colorless to yellowish. |
| Odor | Amine-like. |
| Odor threshold | Not available. |
| рН | 11.3 at 20 °C |
| Vapor pressure | 0.02 hPa at 20 °C |
| Vapor density | Not available. |
| Boiling point | 428 °F (220 °C) |
| Melting point/Freezing point | < -94 °F (< -70 °C) |
| Solubility (water) | 5.4 g/l at 20°C |
| Specific gravity | 7.88 lbs/gal |
| Flash point | 199 °F (92.8 °C) |
| Flammability limits in air, upper, % by volume | Not available. |
| Flammability limits in air, lower, % by volume | Not available. |
| Auto-ignition temperature | 572 °F (300 °C) |
| VOC | < 100 g/l |
| Viscosity | 2 mPa·s DIN 53015 at 20 °C |
| Partition coefficient (n-octanol/water) | No data available. 1.7 QSAR-method (20 °C) |
| Molecular weight | 221.42 g/mol |
| Molecular formula | C9-H23-N-O3-Si |
| Other data | |
| Explosive limit - lower (%) | 0.8 % |
| Explosive limit - upper (%) | 4.5 % |
| Flammability | not determined |
| | |

10. Chemical Stability & Reactivity Information

| Chemical stability | Stable under normal temperature conditions. | |
|---------------------------------------|--|--|
| Conditions to avoid | Avoid heat, sparks, open flames and other ignition sources. | |
| Incompatible materials | Strong oxidizing agents. Acids. | |
| Hazardous decomposition products | At elevated temperatures: Carbon monoxide. Carbon dioxide (CO2). Nitrogen Oxides. Ethanol in case of hydrolysis. | |
| Possibility of hazardous reactions | Will not occur. | |

11. Toxicological Information

| Sensitization | No sensitizing effects known. |
|----------------------------|---|
| Acute effects | Causes skin, eye and digestive tract burns. |
| Local effects | Causes skin, eye and digestive tract burns. Causes respiratory tract irritation. |
| Chronic effects | None known. |
| Carcinogenicity | No data available. |
| Mutagenicity | No data available. |
| Reproductive effects | No data available. |
| Symptoms and target organs | Inhalation: May cause damage to mucous membranes in nose, throat, lungs and bronchial system. Eye contact: Prolonged contact causes serious eye and tissue damage. Skin contact: May cause serious chemical burns to the skin. Ingestion: May cause burns in mucous membranes, throat, esophagus and stomach. |

12. Ecological Information

| 0 | | | |
|---|--|--|--|
| Ecotoxicity | The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. | | |
| Persistence and degradability | No data available. | | |
| Bioaccumulation / Accumulation | No data available. | | |
| Partition coefficient 1.7 QSAR-method, (20 °C) | No data available. | | |
| Mobility in environmental media | Not available. | | |
| 13. Disposal Considerations | | | |
| Waste codes | D002: Corrosive waste | | |
| Disposal instructions | Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. | | |

Waste from residues / unused Dispose of in accordance with local regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

DOT

products

| Basic shipping requirement | S: |
|----------------------------|---|
| UN number | UN3267 |
| Proper shipping name | Corrosive liquid, basic, organic, n.o.s. (3-Aminopropyltriethoxysilane) |
| Hazard class | 8 |
| Subsidiary hazard class | - |
| Packing group | |
| Environmental hazards | |
| Marine pollutant | No |
| Additional information: | |
| Special provisions | B2, IB2, T11, TP2, TP27 |
| Packaging exceptions | 154 |
| Packaging non bulk | 202 |
| Packaging bulk | 242 |
| ΙΑΤΑ | |
| UN number | UN3267 |
| UN proper shipping name | Corrosive liquid, basic, organic, n.o.s. (3-Aminopropyltriethoxysilane) |
| Transport hazard class(es) | 8 |
| Subsidiary class(es) | - |
| Packing group | No |
| Environmental hazards | 8L |
| ERG code | |
| IMDG | UN3267 |
| UN number | CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3-Aminopropyltriethoxysilane) |
| UN proper shipping name | 8 |
| Transport hazard class(es) | - |
| Subsidiary class(es) | ll |
| Packing group | |
| Environmental hazards | No |
| Marine pollutant | F-A, S-B |
| EmS No. | |
| 15. Regulatory Information | 1 |

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

| | Notification (40 CFR 707, Subpt. D) | |
|--|--|-------------------------------|
| Not regulated. Clean Air Act (CAA) Section | 112 Hazardous Air Pollutants (HAPs) List | |
| Not regulated. | | |
| CERCLA (Superfund) reportable | quantity | |
| None | | |
| Superfund Amendments and Re | eauthorization Act of 1986 (SARA) | |
| Hazard categories | Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No | |
| Section 302 extremely hazardous substance (40 CFR 355, Appendix A) | No | |
| Section 311/312 (40 CFR 370) | Yes | |
| Inventory status | | |
| Country(s) or region Australia | Inventory name Australian Inventory of Chemical Substances (AICS) | On inventory (yes/no)* Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |
| *A "Yes" indicates this product co | omplies with the inventory requirements administered by the governing country(s) | |
| State regulations | This product does not contain a chemical known to the State of Califor defects or other reproductive harm. | nia to cause cancer, birth |
| US. Massachusetts RTK - S | ubstance List | |
| Not regulated. US. New Jersey Worker and Not regulated. | Community Right-to-Know Act | |
| US. Pennsylvania RTK - Haz Not regulated. | zardous Substances | |
| 16. Other Information | | |
| Further information | HMIS® is a registered trade and service mark of the NPCA. | |
| HMIS® ratings | Health: 3 Flammability: 2 Physical hazard: 0 | |
| NFPA ratings | Health: 3 Flammability: 2 Instability: 0 | |
| Disclaimer | The information in the sheet was written based on the best knowledge available. | and experience currently |