

SAFETY DATA SHEET – B SIDE

SECTION 1: PRODUCT & COMPANY INFORMATION

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Supplier / Manufacturer: Demilec Inc. 3315 E. Division Street, Arlington, TX 76011 Phone: 817-640-4900 / Fax: 817-633-2000 E-mail: Info@Demilec.com / Website: www.Demilec.com | GHS Product Identifier: Heatlok [®] XT B-side Chemical Name: Polyurethane Resin / B-side Product Type: Liquid Identified Use: Component B of a Spray-Applied Polyurethane System |
| Emergency Telephone in USA: CHEMTREC 800-424-9300. In Canada: CANUTEC 613-996-6666 or *666 (cellular). | |

SECTION 2: HAZARDS IDENTIFICATION

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|--------------------------------------------|----------------------------------------------------------------------------------------------------|
| OSHA / HCS Status | This material is classified hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200). |
| Classification of the Substance or Mixture | Serious eye damage / eye irritation – Category 2A |

GHS LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS

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| Hazard Pictograms | |
| Signal Word | Warning |
| Hazard Statements | H319 – Causes serious eye irritation. |

PRECAUTIONARY STATEMENTS

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| Prevention | P280 – Wear eye or face protection P264 – Wash hands thoroughly after handling. |
| Response | P350 + P351 + P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + 313 – If eye irritation persists: Get medical attention. |
| Storage | Store locked up. |
| Disposal | Not applicable. |

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

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| Physical Hazards Not Otherwise Classified (PHNOC) | None known. |
| Health Hazards Not Otherwise Classified (HHNOC) | None known. |

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

| | |
|---------------------|---------------------------|
| Substance / Mixture | Mixture |
| Chemical Name | Polyurethane Resin B-side |

CAS NUMBER / OTHER IDENTIFIERS

| | |
|--------------|-----------------|
| CAS Number | Not applicable. |
| Product Code | Not available. |

| INGREDIENTS | CAS # | % |
|----------------------------------------------------------------------------|------------|--------|
| 1,1,1,3,3-Pentafluoropropane | 460-73-1 | 5 – 10 |
| Tris (2-chloro-1-methylethyl) Phosphate | 13674-84-5 | 5 – 10 |
| Triethyl Phosphate | 78-40-0 | 1 – 5 |
| Trans-dichloroethylene | 156-60-5 | 1 – 5 |
| Ethanediol | 107-21-1 | 1 – 5 |
| 2,2-Oxibisethanol | 111-46-6 | 1 – 5 |
| N,N,N',N',N'',N''-Hexamethyl-1,3,5-triazine-1,3,5(2H,4H,6H)-tripropanamine | 15875-13-5 | 1 – 5 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: FIRST AID MEASURES

DESCRIPTION OF NECESSARY FIRST AID MEASURES

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| Eye Contact | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention. |
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Maintain an open airway. Get medical attention if symptoms occur. |
| Skin Contact | Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur. |

MOST IMPORTANT SYMPTOMS / EFFECTS, ACUTE AND DELAYED

POTENTIAL ACUTE HEALTH EFFECTS

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|--------------|------------------------------------------------------------------------------------------------------------------|
| Eye Contact | Causes serious eye irritation. |
| Inhalation | Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. |
| Skin Contact | No known significant effects or critical hazards. |
| Ingestion | Irritating to mouth, throat and stomach. |

OVER-EXPOSURE SIGNS / SYMPTOMS

| | |
|--------------|------------------------------------------------------------------------------------|
| Eye Contact | Adverse symptoms may include the following: pain or irritation, watering, redness. |
| Inhalation | No known significant effects or critical hazards. |
| Skin Contact | No known significant effects or critical hazards. |
| Ingestion | No known significant effects or critical hazards. |

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY

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|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Notes to Physician | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Specific Treatments | No specific treatment. |
| Protection of First-aiders | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

See toxicological information (Section 11)

SECTION 5: FIRE FIGHTING MEASURES

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| Suitable Extinguishing Media | Use dry chemical, CO ₂ , water spray (fog) or foam. |
| Unsuitable Extinguishing Media | None known. |
| Specific Hazards Arising from the Chemical | No specific fire or explosion hazard. |
| Hazardous Thermal Decomposition Products | Combustion products may include carbon monoxide, carbon dioxide, nitrogen oxides, halogenated compounds, traces of ammonia vapors, phosphoric oxides, aldehydes and ketones, low molecular weight organic products, noxious and toxic fumes. |
| Special Protective Actions for Fire Fighters | No special measures are required. |
| Special Protective Equipment for Fire Fighters | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

| | |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| For Non-emergency Personnel | Put on appropriate personal protective equipment. |
| For Emergency Responders | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For Non-emergency Personnel". |

| | |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental Precautions | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP | |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spill | Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

SECTION 7: HANDLING & STORAGE

PRECAUTIONS FOR SAFE HANDLING

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|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Storage Temperature | 59 - 77°F (15 - 25°C) |
| Storage Life | 6 months |
| Protective Measures | Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| Advice on General Occupational Hygiene | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. |
| Conditions for Safe Storage Including any Incompatibilities | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |

SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

CONTROL PARAMETERS - UNITED STATES

OCCUPATIONAL EXPOSURE LIMITS

| Ingredient Name | Occupational Exposure Limit Values |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1,1,1,3,3-Pentafluoropropane | AIHA WEEL (United States, 10/2011) TWA: 300 ppm 8 hours |
| Triethyl Phosphate | AIHA WEEL (United States, 10/2011) TWA: 7.45 mg/m ³ 8 hours |
| Trans-dichloroethylene | ACGIH TLV (United States, 4/2014) TWA: 200 ppm 8 hours TWA: 793 mg/m ³ 8 hours |
| Ethanediol ACGIH TLV (United States, 4/2014) | C: 100 mg/m ³ Form: Aerosol OSHA PEL 1989 (United States, 3/1989) CEIL: 125 mg/m ³ CEIL: 50 ppm |
| 2,2-Oxibisethanol | AIHA WEEL (United States, 5/2010) TWA: 10 mg/m ³ 8 hours |

CONTROL PARAMETERS - CANADA

| OCCUPATIONAL EXPOSURE LIMITS | | TWA (8 HOURS) | | | STEL (15 MINS) | | | CEILING | | | |
|------------------------------|-----------------|---------------|-------------------|-------|----------------|-------------------|-------|---------|-------------------|-------|-------|
| Ingredient Name | List Name | ppm | mg/m ³ | other | ppm | mg/m ³ | other | ppm | mg/m ³ | other | notes |
| Trans-dichloroethylene | US ACGIH 4/2014 | 200 | 793 | - | - | - | - | - | - | - | |
| | AB 4/2009 | 200 | 793 | - | - | - | - | - | - | - | |
| | BC 7/2013 | 200 | - | - | - | - | - | - | - | - | |
| | ON 1/2013 | 200 | 793 | - | - | - | - | - | - | - | |
| | QC 1/2014 | 200 | 793 | - | - | - | - | - | - | - | |
| 1,1,1,3,3-Pentafluoropropane | US AIHA 10/2011 | 300 | - | - | - | - | - | - | - | - | |

| | | | | | | | | | | | |
|--------------------|-----------------|----|------|----|-----|----|---|----|-----|-----|---------|
| Ethanediol | US ACGIH 4/2014 | - | - | - | - | - | - | - | 100 | - | (a) |
| | AB 4/2009 | - | - | - | - | - | - | - | 100 | - | (3) (a) |
| | BC 7/2013 | - | - | - | - | - | - | - | 100 | - | (a) |
| | | - | 10 | - | - | 20 | - | - | - | - | (b) |
| | | - | - | - | - | - | - | 50 | - | - | (c) |
| | ON 1/2013 | - | - | - | - | - | - | - | 100 | - | (a) |
| QC 1/2014 | - | - | - | 50 | 127 | - | - | - | - | (d) | |
| 2,2-Oxibisethanol | US AIHA 5/2010 | - | 10 | - | - | - | - | - | - | - | |
| Triethyl Phosphate | US AIHA 10/2011 | - | 7.45 | - | - | - | - | - | - | - | |
| Glycerol | AB 4/2009 | - | 10 | - | - | - | - | - | - | - | (3) (e) |
| | BC 7/2013 | - | 10 | - | - | - | - | - | - | - | (e) |
| | | - | 3 | - | - | - | - | - | - | - | (f) |
| | ON 1/2013 | - | 10 | - | - | - | - | - | - | - | (g) |
| QC 1/2014 | - | 10 | - | - | - | - | - | - | - | (e) | |

(3) Skin sensitization. Form: (a) Aerosol. (b) Particulate. (c) Vapor. (d) Vapor and Mist. (e) Mist. (f) Respirable Mist. (g) Inhalable Fraction.

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|----------------------------------|----------------------------------------------------------------------------------------------------|
| Appropriate Engineering Controls | Good general ventilation should be sufficient to control worker exposure to airborne contaminants. |
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|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental Exposure Controls | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

INDIVIDUAL PROTECTION MEASURES

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|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hygiene Measures | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| Eye/Face Protection | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. |
| Hand Protection | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. |
| Body Protection | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Other Skin Protection | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Respiratory Protection | Use a properly fitted, air-purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. |

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

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|----------------------------------------------|--------------------------------------------------------------|
| Physical State | Liquid |
| Color | Blue |
| Odor | Faint ether odor |
| Odor Threshold | Not available |
| pH | Not available |
| Melting Point | Not available |
| Boiling Point | Not available |
| Flash Point | Closed cup: > 200°F (93°C) (Pensky-Martens) |
| Evaporation Rate | Not available |
| Flammability (solid, gas) | Not available |
| Lower and Upper Explosive (flammable) Limits | Not available |
| Vapor Pressure | Not available |
| Vapor Density | Not available |
| Specific Gravity @ 77°F (25°C) | Summer formula - 1.17 - 1.21 Winter formula - 1.20 - 1.22 |

| | |
|-------------------------------------------|------------------------------------------------------------------|
| Solubility | Moderately soluble in water |
| Partition Coefficient: N-Octanol/Water | Not available |
| Auto-Ignition Temperature | Not available |
| Decomposition Temperature | Not available |
| Viscosity @ 77°F (25°C) | Summer formula - 250 - 350 cps Winter formula - 200 - 300 cps |
| Volatility | Not available |

| SECTION 10: STABILITY & REACTIVITY | |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity | No specific test data related to reactivity available for this product or its ingredients. |
| Chemical Stability | The product is stable. |
| Possibility of Hazardous Reactions | Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to Avoid | Avoid exposure to moisture and high temperatures to protect product quality. |
| Incompatible Materials | Strong oxidizing materials, strong acids and alkali or alkaline earth metals (aluminum, zinc, beryllium and copper). Avoid unintended contact with isocyanates. |
| Hazardous Decomposition Products | Decomposition products may include carbon monoxide, carbon dioxide, nitrogen oxides, halogenated compounds, traces of ammonia vapors, phosphoric oxides, aldehydes and ketones, low molecular weight organic products, noxious and toxic fumes. |

| SECTION 11: TOXICOLOGICAL INFORMATION | | | | | |
|-----------------------------------------|-------------------------------|---------|---------------|--------------------------|-------------|
| ACUTE TOXICITY | | | | | |
| Product / Ingredient Name | Endpoint | Species | Result | Exposure | |
| 1,1,1,3,3-Pentafluoropropane | LC50 Inhalation Vapor | Rat | > 1,110 mg/l | 4 hours | |
| | LD50 Dermal | Rabbit | > 2,000 mg/kg | - | |
| Tris (2-chloro-1-methylethyl) Phosphate | LC50 Inhalation Dusts & Mists | Rat | 17.8 mg/l | 1 hour | |
| | LC50 Inhalation Dusts & Mists | Rat | 5 mg/l | 4 hours | |
| | LD50 Dermal | Rabbit | 1,230 mg/kg | - | |
| | LD50 Oral | Rat | 1,500 mg/kg | - | |
| Triethyl Phosphate | LD50 Oral | Rat | 1,165 mg/kg | - | |
| Trans-dichloroethylene | LC50 Inhalation Gas | Rat | 24,100 ppm | 4 hours | |
| | LD50 Dermal | Rabbit | > 5 g/kg | - | |
| | LD50 Oral | Rat | 1,235 mg/kg | - | |
| Ethanediol | LD50 Oral | Rat | 4,700 mg/kg | - | |
| 2,2-Oxibisethanol | LD50 Dermal | Rabbit | 11,890 mg/kg | - | |
| | LD50 Oral | Rat | 12,000 mg/kg | - | |
| IRRITATION / CORROSION | | | | | |
| Product / Ingredient Name | Result | Species | Score | Exposure | Observation |
| Triethyl Phosphate | Eyes - Moderate irritant | Rabbit | - | 100 mg | - |
| Trans-dichloroethylene | Eyes - Moderate irritant | Rabbit | - | 10 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 h 500 mg | - |
| Ethanediol | Eyes - Mild irritant | Rabbit | - | 24 h 500 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 1 h 100 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 6 h 1440 mg | - |
| | Skin - Mild irritant | Rabbit | - | 555 mg | - |
| 2,2-Oxibisethanol | Eyes - Mild irritant | Rabbit | - | 50 mg | - |
| | Skin - Mild irritant | Human | - | 72 h 112 mg Intermittent | - |
| | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| SENSITIZATION | | | | | |
| There is no data available. | | | | | |

| CARCINOGENICITY | | | | | | |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------|-------------------|-------|------------------|-------|
| CLASSIFICATION | | | | | | |
| Ingredient | OSHA | IARC | NTP | ACGIH | EPA | NIOSH |
| Ethanediol | - | - | - | A4 | - | None |
| 2,2-Oxibisethanol | - | - | - | - | - | None |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) | | | | | | |
| Product / Ingredient Name | Category | | Route of Exposure | | Target Organs | |
| 1,1,1,3,3-Pentafluoropropane | Category 3 | | Not applicable | | Narcotic effects | |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) | | | | | | |
| There is no data available. | | | | | | |
| ASPIRATION HAZARD | | | | | | |
| There is no data available. | | | | | | |
| INFORMATION ON THE LIKELY ROUTES OF EXPOSURE | | | | | | |
| Dermal contact. Eye contact. Inhalation. Ingestion. | | | | | | |
| POTENTIAL ACUTE HEALTH EFFECTS | | | | | | |
| Eye Contact | Causes serious eye irritation. | | | | | |
| Inhalation | Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. | | | | | |
| Skin Contact | No known significant effects or critical hazards. | | | | | |
| Ingestion | Irritating to mouth, throat and stomach. | | | | | |
| SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS | | | | | | |
| Eye Contact | Adverse symptoms may include the following: pain or irritation, watering, redness. | | | | | |
| Inhalation | No known significant effects or critical hazards. | | | | | |
| Skin Contact | No known significant effects or critical hazards. | | | | | |
| Ingestion | No known significant effects or critical hazards. | | | | | |
| DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE | | | | | | |
| SHORT TERM EXPOSURE | | | | | | |
| Potential Immediate Effects | No known significant effects or critical hazards. | | | | | |
| Potential Delayed Effects | No known significant effects or critical hazards. | | | | | |
| LONG TERM EXPOSURE | | | | | | |
| Potential Immediate Effects | No known significant effects or critical hazards. | | | | | |
| Potential Delayed Effects | No known significant effects or critical hazards. | | | | | |
| POTENTIAL CHRONIC HEALTH EFFECTS | | | | | | |
| General | No known significant effects or critical hazards. | | | | | |
| Carcinogenicity | No known significant effects or critical hazards. | | | | | |
| Mutagenicity | No known significant effects or critical hazards. | | | | | |
| Teratogenicity | No known significant effects or critical hazards. | | | | | |
| Developmental Effects | No known significant effects or critical hazards. | | | | | |
| Fertility Effects | No known significant effects or critical hazards. | | | | | |
| NUMERICAL MEASURES OF TOXICITY - ACUTE TOXICITY ESTIMATES | | | | | | |
| Route | ATE Value | | | | | |
| Oral | 5632.4 mg/kg | | | | | |
| Dermal | 68750 mg/kg | | | | | |
| Inhalation (vapors) | 392.9 mg/l | | | | | |

| SECTION 12: ECOLOGICAL INFORMATION | | | |
|-----------------------------------------|---------------------------------------------------|------------------------------------------------------------------------|------------------|
| TOXICITY | | | |
| Product / Ingredient Name | Result | Species | Exposure |
| 1,1,1,3,3-Pentafluoropropane | Acute EC50 > 97.9 mg/l | Daphnia | 48 hours |
| | Acute EC50 > 81.8 mg/l | Fish | 96 hours |
| Triethyl Phosphate | Acute LC50 100 mg/l fresh water | Fish - Pimephales promelas - Juvenile (fledgling, hatchling, weanling) | 96 hours |
| Trans-dichloroethylene | Acute LC50 220,000 Qg/l fresh water | Daphnia - Daphnia magna | 48 hours |
| Ethanediol | Acute LC50 100,000 Qg/l marine water | Crustaceans - Crangon crangon - Adult | 48 hours |
| | Acute LC50 10,000,000 Qg/l fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 8,050,000 Qg/l fresh water | Fish - Pimephales promelas | 96 hours |
| 2,2-Oxibisethanol | Acute LC50 32,000 ppm fresh water | Fish - Gambusia affinis - Adult | 96 hours |
| PERSISTENCE AND DEGRADABILITY | | | |
| Product / Ingredient Name | Aquatic Half-life | Photolysis | Biodegradability |
| Ethanediol | - | - | Readily |
| BIOACCUMULATIVE POTENTIAL | | | |
| Product / Ingredient Name | LogPow | BCF | Potential |
| Tris (2-chloro-1-methylethyl) Phosphate | 2.68 | 0.8 - 2.8 | Low |
| Triethyl Phosphate | 1.11 | < 1.3 | Low |
| Trans-dichloroethylene | 2.09 | - | Low |
| Ethanediol | -1.36 | - | Low |
| 2,2-Oxibisethanol | -1.98 | 100 | Low |
| MOBILITY IN SOIL | | | |
| Soil/Water Partition Coefficient (Koc) | There is no data available. | | |
| Other Adverse Effects | No known significant effects of critical hazards. | | |

| SECTION 13: DISPOSAL CONSIDERATION | | | |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------|
| Disposal Methods | The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. | | |
| UNITED STATES - RCRA TOXIC HAZARDOUS WASTE "U" LIST | | | |
| Product / Ingredient Name | CAS # | Status | Reference Number |
| Trans-dichloroethylene | 156-60-5 | Listed | U079 |

| SECTION 14: TRANSPORTATION INFORMATION | |
|----------------------------------------|---------------|
| DOT | |
| UN Number | Not regulated |
| UN Proper Shipping Name | - |
| Transport Hazard Class(es) | - |
| Packing Group | - |
| Environmental Hazard | No |
| Additional Information | - |
| TDG | |
| UN Number | Not regulated |
| UN Proper Shipping Name | - |

| | |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Transport Hazard Class(es) | - |
| Packing Group | - |
| Environmental Hazard | No |
| Additional Information | - |
| IMDG | |
| UN Number | Not regulated |
| UN Proper Shipping Name | - |
| Transport Hazard Class(es) | - |
| Packing Group | - |
| Environmental Hazard | No |
| Additional Information | - |
| IATA | |
| UN Number | Not regulated |
| UN Proper Shipping Name | - |
| Transport Hazard Class(es) | - |
| Packing Group | - |
| Environmental Hazard | No |
| Additional Information | - |
| AERG: Not applicable. | |
| Special Precautions for User | Transport within user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. |
| Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code | Not available |

SECTION 15: REGULATORY INFORMATION

UNITED STATES

| | |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U.S. Federal Regulations | TSCA 8(a) PAIR: 2,2-Dimethylpropan-1-ol, tribromo derivative; Triethyl phosphate; Octamethylcyclotetrasiloxane. TSCA 8(c) calls for record of SAR: Triethyl phosphate. United States inventory (TSCA 8b): All components are listed or exempted. Clean Water Act (CWA) 307: Trans-dichloroethylene. |
| Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) | Listed |
| Clean Air Act Section 602 Class I Substances | Not listed |
| Clean Air Act Section 602 Class II Substances | Not listed |
| DEA List I Chemicals (Precursor Chemicals) | Not listed |
| DEA List II Chemicals (Essential Chemicals) | Not listed |
| SARA 302/304 | No products were found |
| SARA 304 RQ | Not applicable |

SARA 311/312

CLASSIFICATION

Immediate (acute) health hazard.

| COMPOSITION / INFORMATION ON INGREDIENTS | | | | | | |
|-----------------------------------------------------------------------------|--------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| Product / Ingredient Name | % | Fire Hazard | Sudden Release of Pressure | Reactive | Immediate (acute) Health Hazard | Delayed (chronic) Health Hazard |
| 1,1,1,3,3-Pentafluoropropane | 5 - 10 | No | Yes | No | Yes | No |
| Tris (2-chloro-1-methylethyl) Phosphate | 5 - 10 | No | No | No | Yes | No |
| Triethyl Phosphate | 1 - 5 | No | No | No | Yes | No |
| Trans-dichloroethylene | 1 - 5 | Yes | No | No | Yes | No |
| Ethenediol | 1 - 5 | No | No | No | Yes | No |
| 2,2-Oxybisethanol | 1 - 5 | No | No | No | Yes | No |
| N,N,N',N',N'',N''-Hexamethyl-1,3,5-triazine-1,3,5-(2H,4H,6H)-tripropanamine | 1 - 5 | No | No | No | Yes | No |

SARA 313

| | Product Name | CAS # | % |
|---------------------------------|--------------|----------|-------|
| Form R - Reporting Requirements | Ethenediol | 107-21-1 | 1 - 5 |
| Supplier Notification | Ethenediol | 107-21-1 | 1 - 5 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

STATE REGULATIONS

| | |
|---------------------|-----------------------------------------------------------------------------------------------|
| Massachusetts | The following components are listed: Ethenediol; Trans-dichloroethylene; Glycerol. |
| New York | The following components are listed: Ethenediol; Trans-dichloroethylene. |
| New Jersey | The following components are listed: Ethenediol; Glycerol. |
| Pennsylvania | The following components are listed: Ethenediol; 2,2' -Oxybisethanol; Trans-dichloroethylene. |
| California Prop. 65 | Glycerol. |

CANADA

CANADIAN LISTS

| | |
|-------------------------------|-------------------------------------------------------------------------------------------------|
| Canadian NPRI | The following components are listed: Ethenediol; 1,1,1,3,3-Pentafluorobutane; |
| 1,1,1,3,3-Pentafluoropropane. | |
| CEPA Toxic Substances | The following components are listed: 1,1,1,3,3-Pentafluorobutane; 1,1,1,3,3-Pentafluoropropane. |

INTERNATIONAL LISTS / NATIONAL INVENTORY

| | |
|-------------------|-----------------|
| Australia | Not determined |
| China | Not determined. |
| Europe | Not determined. |
| Japan | Not determined. |
| Malaysia | Not determined. |
| New Zealand | Not determined. |
| Philippines | Not determined. |
| Republic of Korea | Not determined. |
| Taiwan | Not determined. |

SECTION 16: OTHER INFORMATION

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| Prepared By | Demilec Inc. - Technical Department |
| Preparation Date (Y/M/D) | 2015-10-8 |
| Current Issue Date (Y/M/D) | 2017-5-25 |

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