# Safety Data Sheet

## 1. Product and Company Identification

Product Name: **EZ-Purge™**
Material Uses: Dry, Aerosol Purging Agent for Polyurethane & other moisture sensitive materials
(M)SDS#: EZPURGE-20150310
Validation Date: Mar-10-2015
Supplier/Manufacturer: Specialty Polymers & Services, Inc. (SP&S, Inc.)
27822 Fremont Court, Valencia, CA 91355
Non-emergency phone number: (661) 294-1790 (7AM – 5PM PST)
E-mail: msds@spolymers.com

In case of emergency: Chemtrec (800) 424-9300 or (703) 527-3887

## 2. Hazards Identification

**GHS CLASSIFICATION OF SUBSTANCE OR MIXTURE:**

Gases Under Pressure: Compressed gas, H280

**GHS LABEL ELEMENTS:**

**HAZARD SYMBOLS:**

**SIGNAL WORDS:** Warning!

**HAZARD STATEMENTS:**

H280 Contains gas under pressure; may explode if heated

**PRECAUTIONARY STATEMENTS:**

**PREVENTION:** P202 Do not handle until all safety precautions have been read and understood.
P251: Do not pierce or burn, even after use.
May cause frostbite in contact with skin. (Liquid form can be ejected if the aerosol can is not held upright during use.) HOLD CAN UPRIGHT!
Warning Intentional misuse and inhalation abuse may cause cardiac or central nervous systems effects.

**RESPONSE:** P301+P330+P331+P312 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call POISON CENTER and/or doctor if you feel unwell.
P303+P361+P634+P353+P352 IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash before reuse. Rinse skin with water/shower. Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical attention.

**STORAGE:** P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C (122 °F).

**DISPOSAL:** P501 Dispose of contents and containers in accordance with local, regional and international regulations.

Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) – Annex III

See toxicological information (section 11)
General Information: Read entire MSDS for a more thorough evaluation of the hazards

## 3. Composition / Information on Ingredients

| Name | CAS Number | % |
|---|---|---|
| 1,1,1,2-tetrafluoroethane | 811-97-2 | >99 |

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

## 4. First Aid Measures

| | |
|---|---|
| Eye Contact: | May cause frostbite. Rinse cautiously with water for several minutes. Check for and remove any contact lenses if easy to do. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. Get immediate medical attention. |
| Skin Contact: | May cause frostbite. Wash affected areas with plenty of water. Do not remove clothes. Get medical attention if irritation occurs. |
| Inhalation: | Gross or intentional overexposure may cause: central nervous system depression with dizziness, confusion, incoordination, drowsiness, or unconsciousness. Also, irregular heartbeat, strange chest sensations, light-headiness, or weakness, sometimes progressing to unconsciousness or death due to asphyxiation. Move exposed person to fresh air. If not breathing, give artificial respiration or oxygen. If breathing is difficult, transport to medical care and, if available, give supplemental oxygen. Loosen tight clothing such as a collar, tie, belt, or waistband. Get immediate medical attention. |
| Ingestion: | May cause frostbite or irritation in mouth. Rinse mouth with water. Do not induce vomiting until direct to do so by medical personnel. Get immediate medical attention. |
| Note to physician: | No specific treatment. Treat symptomatically. Call poison control center if large quantities were ingested |

## 5. Fire-Fighting Measures

| | |
|---|---|
| Flash point: | Not applicable |
| Hazardous Thermal Decomposition Products: | Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds, and hydrogen fluorides. |
| Extinguishing Media: | Carbon dioxide, foam, dry chemical, water spray as suitable for the surrounding fire or to cool containers. |
| Special Exposure Hazards: | Promptly isolate the scene by removing all persons from the vicinity of the fire. No actions shall be taken involving any personal risk or without suitable training. |
| 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. Vapors may accumulate in low-lying areas. Aerosol containers may erupt at temperatures above 50°C (122 °F). Produces irritating and toxic fumes in fires or in contact with hot surfaces. |

## 6. Accidental Release Measures

| | |
|---|---|
| Personal Precautions: | No actions shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering area. Do not touch or walk through spilled material. Avoid breathing vapor or mist and provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8). |
| Environmental Precautions: | Avoid dispersal of spilled material and runoff that leads to contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution. |
| Methods of Clean Up: | Stop leak if without risk. For aerosol spills, let product turn gaseous and wait for it to disperse in atmosphere through ventilation. Note: see section 1 for emergency contact information. |

## 7. Handling and Storage

| | |
|---|---|
| Handling: | Wear appropriate personal protective equipment (see Section 8) when handling. Eating, drinking, and smoking should be prohibited in areas where chemical are handled, stored, or processed. Workers should wash hands and face before eating, drinking, and smoking. Keep all containers tightly closed when not in use. Empty containers retain product residue and should be disposed of properly. Do not reuse empty containers for other purposes or to hold other materials. |
| Storage: | Store in accordance with local regulations. Protect from Sunlight and Store in original containers, at 10°C - 40°C. Do not expose to temperatures exceeding 50°C. Keep all containers tightly closed when not in use and tightly re-seal after use. |

## 8. Exposure Controls / Personal Protection

| | |
|---|---|
| Recommended Monitoring Procedures: | If this product contains ingredients with exposure limits, personal, workplace, atmospheric, or biological monitoring may be required to determine the effectiveness of the ventilation system or other control measures and/or to determine whether it is necessary to use respiratory protective equipment. It will also be necessary to reviewed national guidance documents for determining how to handle and relevant Hazardous Substances |
| Engineering measures: | No special ventilation requirements are necessary for this product. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure below the recommended or statutory limits |
| Hygiene measures: | Wash hands, forearms, and face thoroughly after handling any chemical products, and before eating, smoking, and using the lavatory and at the end of the work period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |

**Personal Protection**

| | |
|---|---|
| Respiratory: | In case of inadequate ventilation wear respiratory protection. 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. |
| Hands: | Impervious gloves that comply with an approved safety standard should be worn at all times when handling chemical products if a risk assessment indicates that this is necessary. Consider the parameters specified by the glove manufacture and check gloves during use to ensure they are retaining their protective properties. If exposure to liquid is likely, use cold-insulating gloves and clothing to protect skin. |
| Eyes: | 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, or dusts. If contact is possible use chemical splash googles unless a higher degree of protection is required. |
| Skin: | Personal Protective equipment for the body should be selected based on the task being performed and the risks involved. Typical protective equipment includes non-absorbent lab coats, disposable protective sleeves, coats, or whole body suits. See a safety specialist to determine the appropriate level of protection for your task. |
| Environmental Exposure Controls: | Emissions from ventilation or work processes should be checked to ensure they comply with the requirements of environmental regulations. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. |

## 9. Physical and Chemical Properties

| | | | |
|---|---|---|---|
| Appearance: | colorless | Odor | Slight, ether-like |
| Boiling Point: | -26°C (-15°F) | Freezing Point: | -101°C (-105°F) |
| Flash Point: | Not applicable | pH: | Not determined |
| Auto-ignition Temperature: | >300°C (>572°F) | Flammable Limits: | Not applicable |
| Vapor Pressure: | 4725 mm Hg at 25°C (77°F) | Water Solubility: | 0.15% |
| Specific Gravity: | 1.22 | Vapor Density: | 3.5 (Air = 1) |
| Evaporation Rate: | >1 (butyl acetate =1) | VOC: | Exempt per EPA & WHIMS guidelines |

## 10. Stability and Reactivity

| | |
|---|---|
| Chemical Stability: | This product is stable, under normal conditions of storage and use, hazardous reactions will not occur. |
| Hazardous Polymerization: | Under normal conditions of storage and use, hazardous polymerization will not occur. |
| Conditions to Avoid: | High temperatures and exposure to strong oxidizing agents, alkali or alkali earth metals, powdered aluminum, zinc, magnesium, and beryllium. |
| Hazardous Decomposition | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## 11. Toxicological Information

Acute Toxicity

| Product/Ingredient Name | Test | Endpoint | Species | Result |
|---|---|---|---|---|
| 1,1,1,2-tetrafluoroethane | - | LC50 Inhalation Vapor (4 hours) | Rat | 1500/$m^3$ |

Irritation / Corrosion

| Product/Ingredient Name | Test | Species | Result |
|---|---|---|---|
| 1,1,1,2-tetrafluoroethane | | | No known or expected effects |
| | | | |

Sensitizer

| Product/Ingredient Name | Test | Species | Result |
|---|---|---|---|
| 1,1,1,2-tetrafluoroethane | | | No known or expected effects |
| | | | |

Mutagenicity

| Product/Ingredient Name | Test | | Result |
|---|---|---|---|
| 1,1,1,2-tetrafluoroethane | | | No known or expected effects |
| | | | |

Conclusion/ Summary: the weight of scientific evidence indicates that the components of this product are not genotoxic

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH,NTP or OSHA or :

Reproductive Toxicity

| Product/Ingredient Name | Test | Species | Maternal Toxicity | Fertility | Developmental Effects |
|---|---|---|---|---|---|
| 1,1,1,2-tetrafluoroethane | No data available | | | | |

Teratogenicity

| Product/Ingredient Name | Test | Species | Results |
|---|---|---|---|
| 1,1,1,2-tetrafluoroethane | No data available | | |

Potential Acute Health Effects

Inhalation: No known significant effects or critical hazards except through misuse.
Ingestion: No known significant effects or critical hazards.
Skin Contact: No known significant effects or critical hazards except through misuse.
Eye Contact: No known significant effects or critical hazards except through misuse.

Potential Chronic Health Effects

| Product/Ingredient Name | Test | Endpoint | Species | Results |
|---|---|---|---|---|
| No Data Available | | | | |

General: No known significant effects or critical hazards
Target Organs: 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

## 12. Ecological Information

Environmental Effects: 1,1,1,2-tetrafluoroethane is not classifiable as an environmental toxicant

Aquatic Ecotoxicity

| Product/Ingredient Name | Test | Endpoint | Exposure | Species | Result |
|---|---|---|---|---|---|
| | | | | | |

Persistence and Degradability

| Product/Ingredient Name | Test | Period | Result |
|---|---|---|---|
| 1,1,1,2-tetrafluoroethane | | | No data available |

| Product/Ingredient Name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| | No data available | No data available | No data available |

Bioaccumulative potential

| Product/Ingredient Name | Log $P_{ow}$ | BCF | Potential |
|---|---|---|---|

| | | | |
|---|---|---|---|
| | | | |

Other adverse effects: No known significant effects or critical hazards

Other information: BOD5: Not determined COD: Not Determined TOC: Not determined

## 13. Disposal Consideration

**Waste Disposal Method:** Disposal of this products, solutions, and by-products should at all times comply with the requirements of environmental and waste disposal legislation and any regional or local authority requirements. Dispose of surplus, non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed on untreated to the sewer system unless this is complaint with all applicable laws and regulations. Incineration by an approved and licensed contractor is the most common disposal method. Packaging materials that and absorbents containing the product can typically be landfilled or incinerated. Contact local authorities to determine the proper means of disposal in your area.

## 14. Transport Information

**DOT:** limited quantity – special provision, refer to DOT-SP-10232. A copy of this special permit is required: http://www.sextoncan.com/pdf/certification/DOT-SP10232.pdf

**IATA: Non-Bulk** **Label:** Limited quantity

**Proper Shipping Name:** 1,1,1,2-tetrafluroethane

**Hazard Class:** 2.2 **ID Number:** UN3159 **Packing Group:** Not applicable

## 15. REGULATORY INFORMATION

### US Federal Regulations:

**Occupational Safety and Health Act (OSHA):** This product is considered to be a hazardous chemical under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Resource Conservation and Recovery Act (RCRA):** This product is considered to be a hazardous waste under RCRA (40 CFR 261).

**SARA Title III: Section 304 - CERCLA:** This product does not contain chemicals regulated under Section 304 as extremely hazardous substance(s) for emergency release notification ("CERCLA" List):

**SARA Title III: Section 311/312 - Hazard Communication Standard (HCS):** Immediate (acute) health hazard

Delayed (chronic) health hazard

**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product does not contains) a toxic chemical for routine annual Toxic Chemical Release Reporting under section 313 (40 CFR 372).

**TSCA Section 8(b) - Inventory Status:** All chemical(s) comprising this product are listed on the TSCA inventory.

**TSCA Section 12(b) - Export Notification:** This product does not contain chemicals which are subject to Section 12(b) export notification:

### State Regulations:

**California Proposition 65:** This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

### International Regulations:

**REACH Status (EC 1907/2006):** This material has been registered, pre-registered, or is otherwise exempt from registration under REACH.
**REACH Annex XIV (SVHC):** No listed components as of validation date
**Reach Annex XVIII (Restrictions on the manufacture, placing on the market & use of certain dangerous substances, mixtures, and articles):** No list components as of validation date

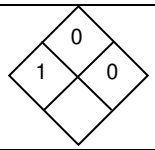
**WHMIS:** Class A: Aerosol Containers

### International Lists:

| | | | |
|---|---|---|---|
| Australia Inventory (AICS): | all components are listed or exempt | Malaysia Inventory (EHS register): | not determined |
| Canadian Inventory (CEPA-DSL): | all components are listed or exempt | New Zealand Inv. of Chem. (NZIoC): | not determined |
| China Inventory (IECSC): | all components are listed or exempt | Philippines Inventory (PICCS): | not determined |
| Japan Inventory (ENCS): | not determined | Taiwan Inventory (CSNN): | not determined |
| Korea Inventory (ECL): | not determined | | |

## 16. OTHER INFORMATION

| Hazardous Material Information System (HMIS) - USA | |
|---|---|
| Health | 1 |
| Flammability | 0 |
| Physical Hazards | 0 |
| Personal Protection | C* |

| National Fire Protection Association (USA): |  |
|---|---|



*suggested minimum personal protection equipment. End user must determine appropriateness of these suggestions for their applications and usage conditions.
Approximate HMIS & NFPA Risk Rating Legend: 0 (low or none); 1 (slight); 2 (Moderate); 3 (Serious); 4 (Severe)

**MSDS No:** EZPURGE-20150310 **Reason Issued:** update
**Prepared By:** Chris Meyer **Approved By:** Chris Meyer Title: Vice President

**NOTICE TO READER**: While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF PRODUCTS FOR THE USER'S PARTICULAR PURPOSE(S).

THIS PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.