SAFETY DATA SHEET
LOW PRESSURE POLYURETHANE FOAM
CR-20 A-SIDE COMPONENT (134a)

SECTION 1 - IDENTIFICATION

1.1 Product Identifier

Product Name: Polyset CR-20
ID SDS: 2612430

1.2 Relevant identified uses of the substance or mixture and uses advised against:

General Use: Low pressure polyurethane spray foam roofing adhesive, A-Side Component, for PROFESSIONAL USE ONLY

Uses advised against: No further information available

1.3 Details of the supplier and of the safety data sheet:

Manufacturer: ICP Building Solutions Group
2775 Barber Road
Norton, Ohio 44203
In Ohio: 330-753-4585; 1-800-321-5585 (Monday-Friday, 8:00 am – 5:00pm EST)

1.4 Emergency telephone numbers:

In the U.S.A CHEMTEL (24 hours) 1-800-255-3924
International CHEMTEL (24 hours) 1-813-248-0585

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Mixture
Classification:
- Gases Under Pressure- Compressed Gas
- Skin Irritation- Category 2
- Skin Sensitization- Category 1
- Eye Irritation- Category 2A
- Acute Toxicity Inhalation- Category 4
- Respiratory Sensitizing- Category 1
- Specific Target Organ Toxicity, Single Exposure -Category 3 (STOT SE 3)
- Specific Target Organ Toxicity, Repeated Exposure- Category 2 (STOT RE 2)

2.2 Label elements

Hazard Symbols:

\[ \text{WARNING} \]

Signal Word:
Hazard Statements:
- H280 Contains gas under pressure; may explode if heated
- H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H332 Harmful if inhaled
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H335 May cause respiratory irritation
- H373 May cause damage to organs (respiratory tract) through prolonged or repeated exposure if inhaled

Prevention:
- P202 Do not handle until all safety precautions have been read and understood
- P251 Pressurized container: Do not pierce or burn, even after use
- P260 Do not breathe dust/fume/gas/mist/vapors/spray
- P262 Do not get in eyes, on skin, or on clothing
- P264 Wash hands and other skin areas exposed to material thoroughly after handling
- P271 Use outdoors or in a well-ventilated area
- P272 Contaminated work clothing should not be allowed out of the workplace
- P280 Wear protective gloves, protective clothing and eye protection
- P285 In case of inadequate ventilation wear respiratory protection

Response:
- P302+P352+P333+P313 IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention
P304+P341 IF INHALED: if breathing is difficult, remove victim to fresh air and keep at rest in a position 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 advice.
P314 Get medical attention if you feel unwell

P337+P313 If eye irritation persists: Get medical attention

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
P362 Take off contaminated clothing and wash before reuse.

Storage:
P405 Store locked up

P410+P403 Protect from sunlight. Store in a well-ventilated place.

Disposal:
P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Other hazards:
Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Not applicable

3.2 Mixtures
Chemical characterization (preparation):

<table>
<thead>
<tr>
<th>% by Weight</th>
<th>Ingredient</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-60</td>
<td>Polymeric diphenylmethane diisocyanate</td>
<td>9016-87-9</td>
</tr>
<tr>
<td>30-60</td>
<td>4,4’ Diphenylmethane diisocyanate</td>
<td>101-68-8</td>
</tr>
<tr>
<td>10-15</td>
<td>Tris (1-chloro-2-propyl) Phosphate</td>
<td>13674-84-5</td>
</tr>
<tr>
<td>5-10</td>
<td>1,1,1,2- Tetrafluoroethane</td>
<td>811-97-2</td>
</tr>
<tr>
<td>&lt;5</td>
<td>Nitrogen</td>
<td>7727-37-9</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

SECTION 4- FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product vapors causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen. If respiratory arrest occurs, start artificial respiration by a trained individual. Loosen tight fitting clothing such as a jacket or tie. Seek medical attention immediately. Asthmatic symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening. Persons receiving significant exposure should be observed for 24-48 hours for signs of respiratory distress.

Eye: Immediately flush eyes with large amounts of water for at least 15 minutes, holding the eyes open with fingers and occasionally lifting the upper and lower lids. Use lukewarm water if possible. If present and easy to do, remove contact lenses. If irritation persists, get medical attention.

Skin: Flush skin with large amounts of water while removing contaminated clothing. Gently wipe product from skin with a damp cloth and continue rinsing for 15 minutes. Wash clothing before reuse. Call a physician if irritation persists.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3 Notes to the physician
If case of an accident or if you feel unwell, seek medical advice immediately (show label or SDS if possible). Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to high propellant concentrations (enclosed spaces or with deliberate abuse). The use of other drugs with less arrhythmogenic potential should be considered. If sympathomimetic drugs are administered, observe victim for the development of cardiac arrhythmias.

SECTION 5- FIRE FIGHTING MEASURES

5.1 Extinguishable media
Suitable methods of extinction: Use dry chemical, carbon dioxide, alcohol resistant foams and water spray
 Unsuitable methods of extinction: Do not use high pressure water jets as these may spread the fire

5.2 Special hazards arising from the substance or mixture
Cylinders may explode due to the buildup of pressure when exposed to extreme heat. During a fire, isocyanate vapors or other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Overexposure to decomposition products may cause a
health hazard. Symptoms may not be immediately apparent or may be delayed. Hazardous decomposition products may include and are not limited to: Nitrogen oxides, Hydrogen cyanide, Carbon monoxide, and Carbon dioxide.

5.3 Advice for firefighters
Keep upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to keep fire-exposed containers cool.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear personal protective equipment recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Ventilate the area.

6.2 Environmental precautions
Avoid dispersal of spilled material or run-off and prevent contact with soil and entry into drains, sewers or waterways.

6.3 Methods and materials for containment and cleaning up
Cover drains and contain spill. Cover spilled material with a large quantity of inert absorbent. Collect material and place into an approved, open-head metal container. Decontaminate the spill and waste area with a neutralization solution. Wait 15 minutes. Repeat applications of decontamination solution, with scrubbing, followed by absorbent until the surface is decontaminated. Allow container to vent for 72 hours to let carbon dioxide escape. Dispose of waste via a licensed waste disposal contractor in accordance with all applicable federal, state, provincial and local regulations. Ensure adequate ventilation.

Additional spill procedures- neutralization solutions (decontamination):
- Use ten parts of solution for each part of the spill.
  1. An aqueous solution containing 3-8% ammonium hydroxide or concentrated ammonia and 0.2-0.5% liquid detergent
  2. An aqueous solution containing 5-10% sodium bicarbonate and 0.2-0.5% liquid detergent

6.4 Reference to other sections
For indications about waste treatment & disposal, see Section 13.
See Section 7 for information about safe handling.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling
For Industrial or professional use only. Observe label precautions, do not use until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray during application. Use adequate ventilation to keep airborne isocyanate levels below exposure limits. Recommend wearing respiratory protection when spraying this material. Warning symptoms (irritation of the eyes, nose, or throat, or odor) are not adequate to prevent overexposure from inhalation. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed. Avoid contact with skin or eyes. Wear appropriate personal protective equipment recommended in Section 8. Wash thoroughly after handing product. Do not puncture or incinerate cylinders. Cylinders are under pressure. Keep cylinder valves closed when not in use.

Advice on protection against fire and explosion
Contents under pressure. Exposure to high temperatures can cause containers to rupture or explode. Do not puncture or incinerate containers.

7.2 Conditions for safe storage, including any incompatibilities
Store in a dry, well-ventilated area and away from incompatible materials (see Section 10.5). Do not store at temperatures above 95°F (35°C) or below 45°F (7.2°C). Do not expose the cylinders to open flame or temperatures above 122°F (50°C); storage at elevated temperatures can cause the container to rupture. Excessive heat can cause premature aging of components resulting in a shorter shelf life. Protect cylinders from physical abuse. Always store the cylinders in the upright position.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>OSHA-PEL</th>
<th>ACGIH-TLV</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4' Diphenylmethane diisocyanate</td>
<td>101-68-8</td>
<td>0.2 mg/m³; 0.02 ppm CEIL</td>
<td>0.051 mg/m³; 0.005 ppm (8 hours TWA)</td>
<td>NIOSH 0.2 mg/m³; 0.02 ppm CEIL 0.051 mg/m³; 0.005 ppm TWA</td>
</tr>
<tr>
<td>Polymeric diphenylmethane diisocyanate</td>
<td>9016-87-9</td>
<td>0.2 mg/m³; 0.02 ppm CEIL</td>
<td>0.051 mg/m³; 0.005 ppm (8 hours TWA)</td>
<td>NIOSH 0.2 mg/m³; 0.02 ppm CEIL 0.051 mg/m³; 0.005 ppm TWA</td>
</tr>
<tr>
<td>1,1,1,2 Tetrafluoroethane</td>
<td>811-97-2</td>
<td></td>
<td></td>
<td>WEEL 1.000 ppm AIHA TWA 4240 mg/ m³</td>
</tr>
</tbody>
</table>

8.2 Exposure controls:

Engineering Controls: Use local and general exhaust ventilation to control levels of exposure.

Eye/face Protection: Wear protective goggles or safety glasses with side shields.

Hand Protection: Use chemically resistant gloves (i.e. Nitrile gloves). Nitrile/butadiene rubber, butyl rubber, polyethylene, PVC (vinyl), or
neoprene gloves are also effective. Glove selection should take into account potential body reactions to certain materials and manufacturer’s instructions for use. Break through time of selected gloves must be greater than the intended use period. **Other Protective Equipment:** Use clothing that protects against dermal exposure. Appropriate protective clothing varies depending on the potential for exposure. To ensure proper skin protection, wear PPE in such a manner that no skin is exposed. **Respiratory Protection:** An exposure assessment may be needed to decide if a respirator is required. If a respiratory is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure: Half face piece or full face piece supplied-air respirator. For questions about suitability for a specific application, consult with your respirator manufacturer. The odor and irritancy of this material is inadequate to warn of excessive exposure. **Hygiene Measures:** An eye wash station or portable eye wash station should be in the area. Wash hands thoroughly after use, before eating, drinking or using the lavatory. Employees/Users should be educated and trained in the safe use and handling of this product. **Medical Surveillance:** All employees/end-users who work with isocyanates should undergo a medical evaluation. A history of eczema or respiratory allergies are possible reasons for medical exclusion from working with isocyanates. Users with a prior history of isocyanate sensitization should be excluded from further work with isocyanates. Once a user is diagnosed with being sensitized to isocyanates, no further exposure should be permitted.

### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>9.1 Information on basic physical and chemical properties</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>General Physical Form</td>
<td>Amber to dark brown liquid. Forms an off-white to yellowish froth when released from the container</td>
</tr>
<tr>
<td>Odor</td>
<td>Slightly musty</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial Boiling Point and Boiling Range</td>
<td>MDI boils at 406°F (208°C)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>MDI &gt;399°F (&gt;204°C) Closed Cup</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower Flammability/Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Flammability/Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure in Container</td>
<td>Contents under pressure have a vapor pressure &gt;50 psi (&gt;345kPa)</td>
</tr>
<tr>
<td>Vapor Pressure of Liquid</td>
<td>Liquid phase vapor pressure: &lt;1 mm Hg @ 40°C</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density/Specific Gravity</td>
<td>~ 1.23 @ 25°C (Water = 1)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble; reacts slowly with water during cure, liberating traces of CO₂</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC Content (EPA Method 24)</td>
<td>107 g/L when mixed as intended with B-side</td>
</tr>
</tbody>
</table>

### SECTION 10- STABILITY AND REACTIVITY

10.1 Reactivity
No dangerous reaction known under conditions of normal use.

10.2 Chemical stability
Stable under normal conditions of use and recommended storage conditions. See Section 7 for storage recommendations.

10.3 Possibility of hazardous reactions
Exposure to elevated temperatures can cause containers to rupture or explode. Avoid moisture, material reacts slowly with water releasing carbon dioxide. Contents are under pressure.

10.4 Conditions to avoid
Temperatures below 60°F (16°C) or temperatures above 90°F (32°C). Avoid heat and flames.

10.5 Incompatible materials
Alcohols, strong bases, amines, metal compounds, ammonia, and strong oxidizers. Avoid contamination with water.

10.6 Hazardous decomposition products
See Section 5.2 for hazardous decomposition products related to combustion.
SECTION 11- TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Signs and Symptoms of Exposure based on test data and/or information on the components, this material may produce the following health effects:

Inhalation: Isocyanates vapors at concentrations above the concentration limits or guidelines can irritate the mucous membranes in the respiratory tract with symptoms of burning sensation, runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (difficulty breathing). Persons with a pre-existing, nonspecific bronchial hyperactivity can respond to concentrations below the exposure limits or guidelines with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the exposure limits or guidelines may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in the lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible; however, increased lung sensitivity may persist for a longer period of time. May be harmful if inhaled. Inhalation of the propellant may cause lightheadedness, headache and lethargy.

Eye Contact: May cause eye irritation. Symptoms may include redness, swelling, stinging, and tearing. May cause temporary corneal injury. Product vapor may cause eye irritation with symptoms of burning and tearing.

Skin Contact: May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic reaction. Can cause sensitization. Persons previously sensitized can experience allergic skin reactions. May be harmful if absorbed through the skin.

Ingestion: May be harmful if swallowed. May cause gastrointestinal irritation: stomach distress, nausea, or vomiting.

Acute oral toxicity
Expected to have low acute oral toxicity. 4,4'- Diphenylmethane diisocyanate: LD50, rat: >5000 mg/kg

Acute inhalation toxicity
At room temperature, vapors are minimal. See above for possible exposures. 4,4'- Diphenylmethane diisocyanate: LC50, rat: 490 mg/m³, 4h

Acute dermal toxicity
Expected to have a low acute dermal toxicity. 4,4'- Diphenylmethane diisocyanate: LD50, rabbit: >5000 mg/kg

Skin irritation
Causes skin irritation

Eye irritation
Causes moderate to serious eye irritation

Sensitization
May cause skin and respiratory sensitization

Genotoxicity
Genetic toxicity data for MDI is inconclusive. Some in-vitro studies yield positive results, while other test data were negative

Mutagenicity
Test data using laboratory animals was predominately negative

Specific organ toxicity- single exposure
May cause respiratory irritation

Specific organ toxicity- repeated exposure
May cause damage to the lungs, central nervous system and skin

Aspiration hazard
No data available

11.2 Further information
MDI and PMDI: IARC Group 3 carcinogen- Not classifiable as to its carcinogenicity to humans. Not listed as a carcinogen by ACGIH, OSHA or NTP. MDI/PMDI did not cause birth defects in laboratory animals; fetal effects occurred only at high doses which were toxic to the mother. Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/PMDI (6mg/m³) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects.

SECTION 12- ECOLOGICAL INFORMATION

12.1 Ecotoxicity
Ecotoxicological data reported are for a comparable product. The Ecotoxicity is that of the hydrolyzed product generally under conditions of maximizing production of soluble species. This material is not classified as dangerous to aquatic organisms (LD50/EC50 greater than 100 mg/l in the most sensitive species).

4,4'- Diphenylmethane diisocyanate
Acute and prolonged toxicity to fish: LC50- Brachydanio rerio (Zebra fish), 96h >1000 mg/l
Toxicity to aquatic invertebrates: EC50- Daphnia magna (Water flea) 48h >1000 mg/l
Toxicity to aquatic plants: NOEC- Desmodesmus subspicatus (Green algae) static, 72 h >1640 mg/l, growth rate inhibition
Toxicity to aquatic microbes: OECD 209 Test- Activated Sludge 3 h >100 mg/l, respiration inhibition
Toxicity to soil dwelling organisms: EC50- Eisenia fetida (earthworms) 14 d >1000 mg/kg

12.2 Persistence and degradability
Product is not readily biodegradable. In aquatic and terrestrial environments, this material reacts with water, forming predominantly insoluble and stable polyureas. In the atmospheric environment, this material is expected to have a short tropospheric half-life, based on data from similar diisocyanates.

12.3 Bioaccumulation potential
Bioaccumulation potential is low.

12.4 Mobility
Expected to have low mobility based on product’s reactivity with water, which forms predominately insoluble polyureas.

12.5 Results of PBT and vPvB assessment
No data available

12.6 Other adverse effects
Additional ecological information: Do not allow material to run into surface waters, wastewater, or soil. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

SECTION 13- DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods
Always wear proper protective equipment as you would while spraying the two-component foam in a well-ventilated area.

Procedure for handling empty or partially used disposable cylinders (not returnable):
1. DO NOT INCINERATE CYLINDERS.
2. Empty cylinders by dispensing the foam into a waste container like a cardboard box or plastic bag. Depressurize the used cylinders using the dispensing unit with a new nozzle attached. Spray the foam until one of the components/cylinders no longer sprays chemical.
3. Remove the nozzle and then continue to depressurize by dispensing the remaining chemical(s) into a waste container (a box lined with a plastic bag) that has adequate industrial liquid absorbing medium in the bottom. Dispense the residual chemicals until the pressure is down to a minimum or there are just large bubbles in the hose.
4. Close the cylinder valves completely, and then operate the dispensing unit again to empty and depressurize the hoses. Use a 9/16” wrench and remove the hoses from the cylinders. Use caution in case there is some residual chemical and/or pressure in the hoses.
5. Invert the cylinder and point away from face. Slowly open the cylinder over the waste container to catch any residual spray.
6. Return the cylinder to an upright position. Shake the container; there should not be any sloshing of liquid. Make sure to leave valves OPEN-do not close. DO NOT PUNCTURE.
7. The user of this material has the responsibility to dispose of empty cylinders, unused material and residues in compliance to all applicable federal, state, international and local regulations regarding the treatment, storage, and disposal for hazardous and nonhazardous wastes. Check with your local waste disposal service for guidance.

NOTE: After dispensing if one cylinder has chemical left in it, treat as hazardous material.

Procedure for handling empty refillable cylinders:
THESE CYLINDERS ARE RETURNABLE. These cylinders (refillable cylinders) are shipped back to ICP Building Solutions Group to be cleaned, refilled, and redistributed. Return instructions are included in or on the A-cylinder collar.

SECTION 14- TRANSPORTATION

Note: Transportation information is for reference only. Customer is urged to consult 49 CFR 100-177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

<table>
<thead>
<tr>
<th>Ground</th>
<th>UN3500 Chemical Under Pressure n.o.s. (Fluorinated hydrocarbon, nitrogen) 2.2 (Non-Flammable Gas Label)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Packing Instruction 335</td>
</tr>
<tr>
<td>Air</td>
<td>UN3500 Chemical Under Pressure n.o.s. (Fluorinated hydrocarbon, nitrogen) 2.2 (Non-Flammable Gas Label)</td>
</tr>
<tr>
<td></td>
<td>Packing Instruction (cargo &amp; passenger) 218</td>
</tr>
<tr>
<td>Water</td>
<td>UN3500 Chemical Under Pressure n.o.s. (Fluorinated hydrocarbon, nitrogen) 2.2 (Non-Flammable Gas Label)</td>
</tr>
</tbody>
</table>
### SECTION 15- REGULATORY

15.1 Safety, health, and environmental regulations/legislations specific for the substance or mixture

**U.S. Federal Regulations:**

**OSHA Hazard Communication Standard:** This material is classified as hazardous in accordance with OSHA 29 CFR 1910-1200

**TSCA Status:** All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory. This product is not subject to TSCA 12(b) Export Notification.

**Superfund Amendments and Reauthorization Act (SARA)**

**SARA Section 311/312 Hazard Categories:** Acute Health Hazard, Chronic Health Hazard, Sudden Release of Pressure Hazard

**SARA 313 Information:** MDI and PMDI are subject to reporting levels established by Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

**SARA 302/304 Extremely Hazardous Substance:** No components of the product exceed the threshold (de minimis) reporting levels established by these sections of the Title III of SARA.

**SARA 302/304 Emergency Planning & Notification:** No components of the product exceed the threshold (de minimis) report levels established by these sections of the Title III of SARA.

**Comprehensive Response Compensation and Liability Act (CERCLA):** This product contains the following CERCLA reportable substances: 4,4'- Diphenylmethane diisocyanate (CAS #101-68-8), RQ: 2,268 kg (5,000 lbs).

**Clean Air Act (CAA) - 4,4'- Diphenylmethane diisocyanate (CAS #101-68-8) is listed as a Hazardous Air Pollutant (HAP) designated in CAA Section 112 (b). This product does not contain any Class 1 or Class 2 Ozone depleters.**

**Clean Water Act (CWA) - 4,4'- Diphenylmethane diisocyanate (CAS #101-68-8) is listed as a Hazardous Substance under the CWA. None of the chemicals in these products are listed as Priority Pollutants under the CWA. None of the chemicals listed in these products are listed as Toxic Pollutants under the CWA.**

**U.S. State Regulations:**

**California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:** None of the ingredients are listed.

**Other U.S. State Inventories:**

4, 4'- Diphenylmethane diisocyanate (CAS #101-68-8) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: CA, DE, ID, IL, ME, MA, MN, NJ, PA, WA, WI

Polymeric MDI (CAS #9016-87-9) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: DE, NJ, MN

**Canadian Ingredient Disclosure List (IDL):** 4,4'- Diphenylmethane diisocyanate (CAS #101-68-8) is listed on the IDL.

**Canadian National Pollutant Release Inventory (NPRI):** MDI and PMDI are listed on the NPRI

**Global Chemical Inventory Lists:**

United States: Toxic Substance Control Act (TSCA)- Yes

Canada: Domestic Substances List (DSL)- Yes

Canada: Non-Domestic Substances List (NDSL)- No

15.2 Chemical safety assessment: For this product a chemical safety assessment was not carried out

### SECTION 16- OTHER

**NFPA:** Health Hazard 2; Flammability 1; Reactivity 1

**HMIS:** Health Hazard 2; Flammability 1; Physical Hazard 1

Hazard Rating: 0= minimal, 1= slight, 2=moderate, 3=severe, 4= extreme

**Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

Gases Under Pressure- Compressed Gas

Skin Irritation- Category 2

Skin Sensitization- Category 1

Eye Irritation- Category 2B
Acute Toxicity Inhalation - Category 4
Respiratory Sensitizing - Category 1
Specific Target Organ Toxicity, Single Exposure - Category 3 (STOT SE 3)
Specific Target Organ Toxicity, Repeated Exposure - Category 2 (STOT RE 2) - Inhalation

The information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof. The manufacturer makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. In no event will the manufacturer be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representations or warranties, either expressed or implied, of merchantability or fitness for a particular use are made hereunder with respect to this information or the product to which information refers.

Information contained herein is deemed to be reliable, conservative and accurate. ICP Building Solutions Group reserves the right to change the design, specifications or any other features at any time and without notice, while otherwise maintaining regulatory compliance.

Revision - January 10, 2019 (Date of Preparation) Version 3.2
Replaces - May 8, 2018 Version 3.1
SAFETY DATA SHEET
LOW PRESSURE POLYURETHANE FOAM
CR-20 B-SIDE COMPONENT (134a)

SECTION 1- IDENTIFICATION

1.1 Product Identifier

Product Name: Polyset CR-20
ID SDS: 2611283

1.2 Relevant identified uses of the substance or mixture and uses advised against:

General Use
Low pressure Polyurethane Foam Adhesive, Side-B Component, for PROFESSIONAL USE ONLY

Uses advised against
No further information available

1.3 Details of the supplier and of the safety data sheet:

Manufacturer
ICP Building Solutions Group
2775 Barber Road
Norton, Ohio 44203
In Ohio: 330-753-4585; 1-800-321-5585 (Monday-Friday, 8:00 am – 5:00pm EST)

1.4 Emergency telephone numbers:

In the U.S.A
CHEMTEL (24 hours) 1-800-255-3924
International
CHEMTEL (24 hours) 1-813-248-0585

SECTION 2- HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Mixture
Classification:
- Gases Under Pressure- Compressed Gas
- Acute Toxicity (oral): Category 4
- Serious Eye Damage/Irritation: Category 1
- Skin Corrosion/Irritation: Category 1B
- Specific Target Organ Toxicity (single exposure): Category 1
- Specific Target Organ Toxicity (repeated exposure): Category 1

2.2 Label elements

Hazard Symbols:

Signal Word: DANGER

Hazard Statements:
- H280 Contains gas under pressure; may explode if heated
- H314 Causes severe skin burns and eye damage
- H370 Causes damage to organs: liver, nervous system, kidney/urinary tract
- H371 May cause damage to organs: cardiovascular system
- H372 Causes damage to organs through prolonged or repeated exposure: liver
- H373 May cause damage to organs through prolonged or repeated exposure: endocrine system

Prevention:
- P202 Do not handle until all safety precautions have been read and understood
- P260 Do not breathe dust/fume/gas/mist/vapors/spray
- P264 Wash thoroughly after handling
- P270 Do not eat, drink, or smoke when using this product
- P271 Use outdoors or in a well-ventilated area
- P280 Wear protective gloves, protective clothing and eye protection

Response:
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P302+P361+P353 IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P308+P311 IF exposed: Call a POISON CENTER or doctor/physician

Storage:
- P405 Store locked up
2.3 Hazards otherwise not classified
May cause chemical gastrointestinal burns.
14% of the mixture consists of ingredients of unknown acute oral toxicity

SECTION 3-COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances
Not applicable
3.2 Mixtures
Chemical characterization (preparation):

<table>
<thead>
<tr>
<th>% by Weight</th>
<th>Ingredient</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-70</td>
<td>Non-Hazardous Polyl Blend</td>
<td>Not Available</td>
</tr>
<tr>
<td>10-20</td>
<td>1,1,1,2- Tetrafluoroethane</td>
<td>811-97-2</td>
</tr>
<tr>
<td>&lt;10</td>
<td>Butane-1,4-diol</td>
<td>110-63-4</td>
</tr>
<tr>
<td>&lt;10</td>
<td>Poly(oxypropylene)diamine</td>
<td>9046-10-0</td>
</tr>
<tr>
<td>&lt;10</td>
<td>Nitrogen</td>
<td>7727-37-9</td>
</tr>
<tr>
<td>&lt;5</td>
<td>Diethyltoluenediamine</td>
<td>68479-98-1</td>
</tr>
<tr>
<td>&lt;5</td>
<td>Diethylene Glycol</td>
<td>111-46-6</td>
</tr>
<tr>
<td>&lt;5</td>
<td>Hexadec-1-ene</td>
<td>629-73-2</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

SECTION 4- FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Remove person to fresh air. Get medical attention.
Eye: Immediately flush eyes with large amounts of water for at least 15 minutes, holding the eyes open with fingers and occasionally lifting the upper and lower lids. Use lukewarm water if possible. If present and easy to do, remove contact lenses. If irritation persists, get medical attention.
Skin: Flush skin with large amounts of water while removing contaminated clothing. Gently wipe product from skin with a damp cloth and continue rinsing for 15 minutes. Wash clothing before reuse. Call a physician if irritation persists.
Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3 Notes to the physician
If case of an accident or if you feel unwell, seek medical advice immediately (show label or SDS if possible). Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5- FIRE FIGHTING MEASURES

5.1 Extinguishable media
Suitable methods of extinction: Use dry chemical, carbon dioxide, alcohol resistant foams and water spray
Unsuitable methods of extinction: None

5.2 Special hazards arising from the substance or mixture
Cylinders may explode due to the buildup of pressure when exposed to extreme heat. Highly toxic gases may be generated by thermal decomposition or combustion. Overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Hazardous decomposition products: Carbon monoxide, Carbon dioxide, Aldehydes, Oxides of Nitrogen.

5.3 Advice for firefighters
Keep upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to keep fire-exposed containers cool.

SECTION 6- ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear personal protective equipment recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust
6.2 Environmental precautions
Avoid dispersal of spilled material or run-off and prevent contact with soil and entry into drains, sewers or waterways.

6.3 Methods and materials for containment and cleaning up
Cover drains and contain spill. Cover spilled material with a large quantity of inert absorbent. Collect material and place into an approved, open-head metal container. Clean contaminated area with soap and water.

6.4 Reference to other sections
For indications about waste treatment, see Section 13
See Section 7 for information about safe handling

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling
For Industrial or professional use only. Observe label precautions, do not use until all safety precautions have been read and understood. Wear all appropriate protective equipment specified in Section 8. Keep cylinders/valves closed when not in use. Recommend using in a well-ventilated area with respiratory protection. Avoid contact with eyes and skin. Keep out of reach of children.

Advice on protection against fire and explosion
Chemicals under pressure. Exposure to high temperatures can cause containers to rupture or explode.

7.2 Conditions for safe storage, including any incompatibilities
Store in a dry, well-ventilated area and away from incompatible materials (see Section 10.5). Do not store at temperatures above 95°F (35°C) or below 45°F (7.2°C). Do not expose the cylinders to open flame or temperatures above 122°F (50°C); storage at elevated temperatures can cause the container to rupture. Excessive heat can cause premature aging of components resulting in a shorter shelf life. Protect containers from physical abuse. Always store the containers in the upright position.

SECTION 8 - EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control Parameters

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>OSHA-PEL</th>
<th>ACGIH-TLV</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene Glycol</td>
<td>111-46-6</td>
<td></td>
<td>WEEL 10 mg/kg (50 ppm)</td>
<td>AIHA TWA 10 mg/m³</td>
</tr>
<tr>
<td>1,1,1,2 Tetrafluoroethane</td>
<td>811-97-2</td>
<td></td>
<td>WEEL 1,000 ppm</td>
<td>AIHA TWA 4240 mg/m³</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>7727-37-9</td>
<td></td>
<td>Limit value not established</td>
<td></td>
</tr>
<tr>
<td>Diethyltoluenediamine</td>
<td>68479-98-1</td>
<td></td>
<td>Chemical Manufacturer: TWA</td>
<td>0.02 ppm (0.13 mg/m³)</td>
</tr>
</tbody>
</table>

8.2 Exposure controls:

Engineering Controls: Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

Eye/face Protection: Recommend full face shield and indirect vented goggles

Hand Protection: Use chemically resistant gloves (i.e. Nitrile gloves). Nitrile/butadiene rubber, butyl rubber, polyethylene, PVC (vinyl), or neoprene gloves are also effective. Glove selection should take into account potential body reactions to certain materials and manufacturer’s instructions for use. Break through time of selected gloves must be greater than the intended use period.

Other Protective Equipment: Use clothing that protects against dermal exposure. Appropriate protective clothing varies depending on the potential for exposure. To ensure proper skin protection, wear PPE in such a manner that no skin is exposed.

Respiratory Protection: An exposure assessment may be needed to decide if a respirator is required. If a respiratory is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure: Half face piece or full face piece air-purifying respirator suitable for organic vapors and particulates. Half face piece or full face piece supplied-air respirator. For questions about suitability for a specific application, consult with your respirator manufacturer.

Hygiene Measures: An eye wash station or portable eye wash station should be in the area. Wash hands thoroughly after use, before eating, drinking or using the lavatory. Employees/Users should be educated and trained in the safe use and handling of this product.
SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Physical Form</td>
<td>Liquid. Forms an off-white to yellowish froth when released from the container</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight fluorocarbon odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial Boiling Point and Boiling Range</td>
<td>0°F</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;=200°F</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower Flammability/Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Flammability/Explosive Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>85.7 psi @ 70°F</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density/Specific Gravity</td>
<td>~ 1.1 @ 25°C (Water = 1)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water: moderate</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC Content (EPA Method 24)</td>
<td>107 g/L when mixed as intended with the A-side</td>
</tr>
</tbody>
</table>

SECTION 10- STABILITY AND REACTIVITY

10.1 Reactivity
This material may be reactive with certain agents under certain conditions- see remaining headings in this section.

10.2 Chemical stability
Stable under normal conditions of use and recommended storage conditions. See Section 7 for storage recommendations.

10.3 Possibility of hazardous reactions
Exposure to elevated temperatures can cause containers to rupture or explode. Chemicals are under pressure.

10.4 Conditions to avoid
Avoid heat and flames.

10.5 Incompatible materials
Strong acids and strong oxidizing agents

10.6 Hazardous decomposition products
None known.
Refer to section 5.2 for hazardous decomposition products during combustion

SECTION 11- TOXICOLOGICAL INFORMATION

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
May cause additional health effects (see below)
Skin Contact:
May be harmful in contact with skin. Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Eye Contact:
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion:
Harmful if swallowed. Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

Additional Health Effects:

**Single exposure may cause target organ effects:**
Liver effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Single exposure, above recommended guidelines, may cause:
Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

**Prolonged or repeated exposure may cause target organ effects:**
Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Endocrine Effects: Signs/symptoms may include disruption of gonadal, thyroid, adrenal, or pancreatic function; changes in hormone production; alterations in circulating hormone levels; and/or changes in tissue response to hormones.

### Toxicological Data
If the component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data is not sufficient for classification.

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Dermal</td>
<td></td>
<td>No data available; calculated &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Overall product</td>
<td>Inhalation- Dust/Mist (4 hours)</td>
<td></td>
<td>No data available; calculated ATE &gt; 12.5 mg/l</td>
</tr>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td></td>
<td>No data available; calculated ATE 300 - 2,000 mg/kg</td>
</tr>
<tr>
<td>Polyol Blend</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Polyol Blend</td>
<td>Inhalation- Dust/Mist (4 hours)</td>
<td>Rat</td>
<td>LC50 &gt; 50 mg/l</td>
</tr>
<tr>
<td>Polyol Blend</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 4,600 mg/kg</td>
</tr>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>Inhalation- Gas (4 hours)</td>
<td>Rat</td>
<td>LC50&gt; 359,300 ppm</td>
</tr>
<tr>
<td>Poly(oxypropylene)diamine</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50&gt; 1,000 mg/kg</td>
</tr>
<tr>
<td>Poly(oxypropylene)diamine</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt;= 475 mg/kg</td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>Ingestion</td>
<td>Human</td>
<td>LD50 estimated to be 300-2,000 mg/kg</td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 13,300 mg/kg</td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>Inhalation- Dust/Mist (4 hours)</td>
<td>Rat</td>
<td>LC50&gt;4.6mg/l</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>Dermal</td>
<td></td>
<td>LD50 estimated to be &gt;5,000 mg/kg</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>Inhalation-Gas</td>
<td></td>
<td>LC50 estimated to be &gt;50,000 ppm</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>Ingestion</td>
<td></td>
<td>LD50 estimated to be &gt;5,000 mg/kg</td>
</tr>
<tr>
<td>Diethyltoluenediamine</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Diethyltoluenediamine</td>
<td>Inhalation- Dust/Mist</td>
<td>Rat</td>
<td>LC50 &gt; 0.61 mg/l</td>
</tr>
<tr>
<td>Diethyltoluenediamine</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 472 mg/kg</td>
</tr>
</tbody>
</table>

### Skin Corrosion/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Polyol Blend</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>Rabbit</td>
<td>Mild irritation</td>
</tr>
<tr>
<td>Poly(oxypropylene)diamine</td>
<td>Rabbit</td>
<td>Corrosive</td>
</tr>
<tr>
<td>Diethyltoluenediamine</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Name</td>
<td>Species</td>
<td>Value</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Polyol Blend</td>
<td>Rabbit</td>
<td>Mild Irritant</td>
</tr>
<tr>
<td>Poly(oxypropylene)diamine</td>
<td>Rabbit</td>
<td>Corrosive</td>
</tr>
<tr>
<td>Diethylenediameine</td>
<td>Rabbit</td>
<td>Severe Irritation</td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>Rabbit</td>
<td>Mild Irritant</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>Professional Judgement</td>
<td>No significant irritation</td>
</tr>
</tbody>
</table>

### Serious Eye Damage/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxypropylene)diamine</td>
<td>Guinea Pig</td>
<td>Not Sensitizing</td>
</tr>
<tr>
<td>Diethylenediameine</td>
<td>Human</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Skin Sensitization

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxypropylene)diamine</td>
<td>In vitro</td>
<td>Rat</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Diethylenediameine</td>
<td>In vivo</td>
<td>Rat</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Respiratory Sensitization

For the component(s) either no data are currently available or the data are not sufficient for classification

### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxypropylene)diamine</td>
<td>In vitro</td>
<td>Not mutagenic</td>
<td></td>
</tr>
<tr>
<td>Poly(oxypropylene)diamine</td>
<td>In vivo</td>
<td>Not mutagenic</td>
<td></td>
</tr>
<tr>
<td>Diethylenediameine</td>
<td>In vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td></td>
</tr>
<tr>
<td>Diethylenediameine</td>
<td>In vivo</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td></td>
</tr>
</tbody>
</table>

### Carcinogenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylenediameine</td>
<td>Ingestion</td>
<td>Rat</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Reproductive Toxicity

For the component/components, either no data are currently available or the data are not sufficient for classification

### Target Organ(s)

#### Specific Target Organ Toxicity- single exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target organ</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2-Tetrafluoroethane</td>
<td>Inhalation</td>
<td>Cardiac sensitization</td>
<td>May cause damage to organs</td>
<td>Dog</td>
<td>NOAEL 40,000 ppm</td>
<td>5 minutes</td>
</tr>
<tr>
<td>Poly(oxypropylene)diamine</td>
<td>Inhalation</td>
<td>Respiratory irritation</td>
<td>May cause respiratory irritation</td>
<td></td>
<td>NOAEL Not Available</td>
<td></td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>Ingestion</td>
<td>Liver/nervous system/kidney and/or bladder</td>
<td>Causes damage to organs</td>
<td>Human</td>
<td>NOAEL Not Available</td>
<td>Poisoning and/or abuse</td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>Ingestion</td>
<td>Central nervous system depression</td>
<td>May cause drowsiness or dizziness</td>
<td>Human</td>
<td>NOAEL Not Available</td>
<td>Poisoning and/or abuse</td>
</tr>
</tbody>
</table>

#### Specific Target Organ Toxicity- repeated exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target organ</th>
<th>Value</th>
<th>Species</th>
<th>Test Result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylenediameine</td>
<td>Ingestion</td>
<td>Liver</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
<td>Rat</td>
<td>LOAEL 0.4 mg/kg/day</td>
<td>24 Months</td>
</tr>
<tr>
<td>Diethylenediameine</td>
<td>Ingestion</td>
<td>Endocrine system</td>
<td>May cause damage to organs through prolonged or repeated exposure</td>
<td>Rat</td>
<td>NOAEL 1.4 mg/kg/day</td>
<td>24 Months</td>
</tr>
<tr>
<td>Diethylenediameine</td>
<td>Ingestion</td>
<td>Kidney/and or bladder</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL 2.8 mg/kg/day</td>
<td>24 Months</td>
</tr>
</tbody>
</table>
Diethyltoluenediamine | Ingestion | Eyes | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1.4 mg/kg/day | 24 Months
---|---|---|---|---|---|---
Diethyltoluenediamine | Ingestion | Heart | skin | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles | nervous system | respiratory system | All data are negative | Rat | NOAEL 3.5 mg/kg/day | 24 Months

### Aspiration Hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxypropylene)diamine</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### SECTION 12- ECOLOGICAL INFORMATION

**Ecotoxicological information**
Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

**Chemical fate information**
Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

### SECTION 13- DISPOSAL CONSIDERATIONS

**Procedure for handling empty or partially used disposable cylinders (not returnable):**

1. **DO NOT INCINERATE CYLINDERS.**
2. Empty cylinders by dispensing the foam into a waste container like a cardboard box or plastic bag. Depressurize the used cylinders using the dispensing unit with a new nozzle attached. Spray the foam until one of the components/cylinders no longer sprays chemical.
3. Remove the nozzle and then continue to depressurize by dispensing the remaining chemical(s) into a waste container (a box lined with a plastic bag) that has adequate industrial liquid absorbing medium in the bottom. Dispense the residual chemicals until the pressure is down to a minimum or there are just large bubbles in the hose.
4. Close the cylinder valves completely, and then operate the dispensing unit again to empty and depressurize the hoses. Use a 9/16” wrench and remove the hoses from the cylinders. Use caution in case there is some residual chemical and/or pressure in the hoses.
5. Invert the cylinder and point away from face. Slowly open the cylinder over the waste container to catch any residual spray.
6. Return the cylinder to an upright position. Shake the container; there should not be any sloshing of liquid. Make sure to leave valves OPEN-do not close. **DO NOT PUNCTURE.**
7. The user of this material has the responsibility to dispose of empty cylinders, unused material and residues in compliance to all applicable federal, state, international and local regulations regarding the treatment, storage, and disposal for hazardous and nonhazardous wastes. Check with your local waste disposal service for guidance.

**NOTE:** After dispensing if one cylinder has chemical left in it, treat as hazardous material.

**Procedure for handling empty refillable cylinders:**
THESE CYLINDERS ARE RETURNABLE. These cylinders (refillable cylinders) are shipped back to ICP Building Solutions Group to be cleaned, refilled, and redistributed. Return instructions are included in or on the A-cylinder collar.

### SECTION 14- TRANSPORTATION

Note: Transportation information is for reference only. Customer is urged to consult 49 CFR 100-177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

| Ground | UN3500 Chemical Under Pressure n.o.s. (Fluorinated hydrocarbon, Nitrogen ) 2.2 (Non-Flammable Gas Label) |
| Air | UN3500 Chemical Under Pressure n.o.s. (Fluorinated hydrocarbon, Nitrogen ) 2.2 (Non-Flammable Gas Label) Packing Instruction (Cargo & Passenger) 218 |
| Water | UN3500 Chemical Under Pressure n.o.s. (Fluorinated hydrocarbon, Nitrogen ) 2.2 (Non-Flammable Gas Label) |
SECTION 15- REGULATORY

15.1 Safety, health, and environmental regulations/legislations specific for the substance or mixture

U.S. Federal Regulations:
OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CFR 1910-1200
TSCA Status: All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory.
This material contains a chemical which requires export notification under TSCA Section 12(b): Diethyltoluenediamine (CAS #68479-98-1) Regulation: TSCA 4 Test Rule Chemicals. Status: Applicable

Superfund Amendments and Reauthorization Act (SARA)
SARA Section 311/312 Hazard Categories:
Fire Hazard- No  Pressure Hazard-Yes Reactivity Hazard- Yes Immediate Hazard- Yes Delayed Hazard- Yes
SARA 313 Information: No components of the product are subject to reporting levels established by Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.
SARA 302/304 Extremely Hazardous Substance: No components of the product exceed the threshold (de minimis) reporting levels established by these sections of the Title III of SARA.
SARA 302/304 Emergency Planning & Notification: No components of the product exceed the threshold (de minimis) report levels established by these sections of the Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): None of the substances in this product are contained in levels that exceed the threshold (de minimis) reporting levels established by CERCLA
Clean Air Act (CAA) – This product does not have any components listed as a Hazardous Air Pollutant (HAP) designated in CAA Section 112 (b). This product does not contain any Class 1 or Class 2 Ozone depleters
Clean Water Act (CWA) – This products does not have any components listed as a Hazardous Substance under the CWA. None of the chemicals in these products are listed as Priority Pollutants under the CWA. None of the chemicals listed in these products are listed as Toxic Pollutants under the CWA.

U.S. State Regulations:
California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: None of the chemicals are listed.
Other U.S. State Inventories:
Diethylene glycol (CAS#111-46-6) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/air Pollutants lists: MN, PA
1,1,1,2- Tetrafluoroethane (CAS #811-97-2) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: ME, WI

SECTION 16- OTHER

NFPA: Health Hazard 3; Flammability 1; Reactivity 0
Hazard Rating: 0=minimal, 1=slight, 2=moderate, 3=severe, 4= extreme

The information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof. The manufacturer makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. In no event will the manufacturer be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representations or warranties, either expressed or implied, of merchantability or fitness for a particular use are made hereunder with respect to this information or the product to which information refers.

Information contained herein is deemed to be reliable, conservative and accurate. ICP Building Solutions Group reserves the right to change the design, specifications or any other features at any time and without notice, while otherwise maintaining regulatory compliance.

Revision- January 10, 2019 (Date of Preparation) Version 2.4
Replaces July 27, 2018 Version 2.3