Material Safety Data Sheet

The following information includes safety data required by OSHA. The recipient of this safety data is responsible for passing the safety information on so that it reaches the end user who may come in contact with the product.

<table>
<thead>
<tr>
<th>Identity:</th>
<th>Indicator Silica Gel</th>
<th>Desiccant Beads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier:</td>
<td>CHEMTREC</td>
<td></td>
</tr>
<tr>
<td>PlusPharma, Inc.</td>
<td>24-hour hotline: (800) 424-9300</td>
<td>No. 370</td>
</tr>
<tr>
<td>2460 Coral Street</td>
<td>Information: (203) 629-7900</td>
<td></td>
</tr>
<tr>
<td>Vista, CA 92081</td>
<td>Date prepared: 04/00</td>
<td></td>
</tr>
<tr>
<td>760.597.0200</td>
<td>CAS No. 112926-00-8</td>
<td>Non-Hazard</td>
</tr>
<tr>
<td></td>
<td>CAS No. 7646-79-9</td>
<td>Hazard</td>
</tr>
</tbody>
</table>

### Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Components:</th>
<th>Silica Gel 99%</th>
<th>Cobalt Chloride 0.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS No.</td>
<td>112926-00-8</td>
<td>7646-79-9</td>
</tr>
</tbody>
</table>

### Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point (°C)</td>
<td>n.a.</td>
</tr>
<tr>
<td>Melting Point (°C)</td>
<td>1713 -6 °C</td>
</tr>
<tr>
<td>Vapor Pressure (mm mg) (°C)</td>
<td>n.a.</td>
</tr>
<tr>
<td>Specific Gravity (H₂O)</td>
<td>n.a.</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>700-800</td>
</tr>
<tr>
<td>Bulk Density (kg/m³)</td>
<td>n.a.</td>
</tr>
<tr>
<td>Solubility in Water (°C:g/1)</td>
<td>Insoluble</td>
</tr>
<tr>
<td>PH (at G/l)</td>
<td>4-8</td>
</tr>
<tr>
<td>Appearance and odor</td>
<td>Blue odorless granules of beads</td>
</tr>
</tbody>
</table>

### Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (Method Used)</td>
<td>Non-Flammable</td>
</tr>
<tr>
<td>Flammable Limits In Air, % by Volume</td>
<td>Lower: n.a.</td>
</tr>
<tr>
<td></td>
<td>Upper: n.a.</td>
</tr>
<tr>
<td>Extinguishing media</td>
<td>n.a.</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures</td>
<td>n.a.</td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazards</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

### Reactivity Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Unstable ☑</td>
</tr>
<tr>
<td>Stable ☒</td>
<td></td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>n.a.</td>
</tr>
<tr>
<td>Incompatibility (Materials to Avoid)</td>
<td>n.a.</td>
</tr>
<tr>
<td>Hazardous Decomposition or Byproducts</td>
<td>n.a.</td>
</tr>
<tr>
<td>Hazardous</td>
<td>May Occur ☐</td>
</tr>
<tr>
<td>Polymerization</td>
<td>Will not ☒</td>
</tr>
</tbody>
</table>

### Health Hazard Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route(s) of Entry:</td>
<td>Indigestion: Believed to be no hazard</td>
</tr>
<tr>
<td></td>
<td>Skin: No Hazard</td>
</tr>
<tr>
<td></td>
<td>Inhalation: n.a.</td>
</tr>
<tr>
<td></td>
<td>Eye: No Hazard</td>
</tr>
<tr>
<td>Signs &amp; Symptoms of Overexposure:</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

### Emergency & First Aid Procedures

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>Open eyelids, rinse with plenty of water to remove dust</td>
</tr>
<tr>
<td>Skin</td>
<td>Wash with plenty of water</td>
</tr>
<tr>
<td>Inhalation</td>
<td>n.a.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Administer plenty of water</td>
</tr>
<tr>
<td>Notes to Physician:</td>
<td>n.a.</td>
</tr>
</tbody>
</table>
Precautions for Safe Handling and Use

Precautions for Handling/Storage | n.a.
--- | ---
Released and Spilled Material | Sweep up
Waste Disposal Method | Comply with local regulations for non-hazardous chemical disposal
Ecological Effects | n.a.

Control Measures

Ventilation | Natural ventilation
Respiratory Protection | Use a NIOSH approved dust mask if dust is present
Gloves | Work gloves
Protective Clothing | Work clothes
Work/Hygienic Practices | No eating, drinking or smoking at worksite

Identity: 9100U Polycarbonate Resin

Product Name: Polycarbonate Resin

Enpol Engineering Resins
P.O. Box 923446
Norcross, GA 30092

Phone: (770) 441-5033
Fax: (770) 441-5037

Emergency Phone: (770) 441-5033

Product Body & Cap

Ingredients:
- Carbonic Acid, polymer with 4,4’-(methylethylidene) bis [phenol]
- Carbonic dichloride, polymer with 4,4’-(1-methylethylidene) bis [phenol]
- Carbonic dichloride, polymer with 4,4’-(1-methylethylidene) bis (2,6-dibromophenol) and 4,4’-(1-methylethylidene) bis [phenol]
- Copolymer of bisphenol A/phosgene terminated with p-tertiary butyl phenol

Physical and Chemical Properties

Physical Form: Solid
Color: Varies with Formulation
Odor: very little
Odor Threshold: n.a.
Specific Gravity: (Water=1):1.2
Viscosity: n.a.
Vapor Pressure: 0
Vapor Density: (Air=1): n.a.
Evaporation Rate: n.a.
Boiling Point: n.a.
Melting point: 329 °C (440 °F)
PH: 7
Solubility in Water: Insoluble

Health Hazard Data/Emergency & First Aid Procedures

This product is not considered a hazard during normal storage & use.

Eye: Vapors and fumes from melt processing may cause irritation. Eye contact should be avoided as a safe practice. **If affected, flush with clean water.**

Skin: Polycarbonate does not require special protection for skin. Avoid prolonged periods of direct contact exposure as a safe practice. **Molten plastic causes severe burns. Cool rapidly with water and obtain immediate medical attention.**

Inhalation: Irritation of the respiratory tract with symptoms of coughing & choking from the processing fumes.

First Aid:
- Eye: Flush eyes with plenty of lukewarm water
- Skin: Wash affected areas with soap & water
- Inhale: Remove to fresh air. Contact a physician if any irritation persists.

Fire Fighting Procedures

Full emergency equipment with self-breathing apparatus should be worn by firefighters.

Extinguishing Media:
- WATER
- WATER FOG
- DRY CHEMICAL
- FOAM
- CO²
(WATER IS BEST, CO² IS GENERALLY NOT RECOMMENDED - LACK OF COOLING CAPACITY).

Unusual Fire/Explosion Hazard: During a fire, irritating & toxic gases & aerosol may be generated by thermal decomposition & combustion.

Autoignition Temp: 1070°F

Precautions for Safe Handling and Use

Spill and Disposal Procedures: Remove mechanically by sweeping, shoveling, or vacuuming the resin & place into container for reuse or disposal. Watch slipping hazard on the areas of spill.

Hazardous Decomposition Products: CO, CO², Bisphenol A, Methane, Diphenyl Carbonate & Phenol derivatives. Possible trace amounts of bromine compounds.
Stability and Reactivity: Stable.
Stability Condition To Avoid: Sources of statics build-up & all other ignition sources should be removed.
Hazardous Polymerization: Will not occur.

Identity: Lurol 205 Coning Oil on Dacron Polyester Yarn
George A. Goulston Co., Inc.
700 N. Johnson Street
Monroe, NC 28110

Product Name: LUROL 205

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>TLV/PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mineral Oil</td>
<td>Greater than 1%</td>
<td>5 mg/m³ (oil mists)</td>
</tr>
<tr>
<td></td>
<td>Ethoxylated Components</td>
<td>Greater than 1%</td>
<td>Not established</td>
</tr>
</tbody>
</table>

Physical Data

<table>
<thead>
<tr>
<th>Boiling Point:</th>
<th>VAP Press: @20 deg C</th>
<th>Less than 0.01 mm/Hg</th>
</tr>
</thead>
<tbody>
<tr>
<td>760 mm Hg, 101.325 kPa</td>
<td>More than 250 deg C</td>
<td></td>
</tr>
<tr>
<td>Pour Point:</td>
<td>Specific Gravity:</td>
<td>H₂O=1</td>
</tr>
<tr>
<td>Less than 0 deg C</td>
<td>Solubility in Water:</td>
<td>% by wt.</td>
</tr>
<tr>
<td>Percent Volatiles:</td>
<td>Color and Odor:</td>
<td>Nil</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Butyl Acetate=1</td>
<td>Less than 1</td>
</tr>
</tbody>
</table>

Fire and Explosion Hazard Data

Flash Point: Greater than 150 deg C
Unusual Explosive Hazard: None
Extinguishing Media: Water spray, Carbon Dioxide or Dry Chemical
Special Fire Fighting Procedures: use supplied breathing air and protective clothing. A solid stream of water directed into burning liquid can cause frothing.
Flammable limits in air (% by volume): n.a.

Reactivity Data

Hazardous Combustion: Burning can produce carbon monoxide and/or carbon dioxide
Stability: Stable
Incompatibility: None
Conditions to Avoid: None
Hazardous Polymerization: Will not occur

Handling & Disposal

Protective Equipment: Not required under normal conditions of use
Disposal Procedures: Solid waste disposal. Deposit in a landfill in accordance with local, state, and federal regulations.
Although no unusual combustion gases have been observed, we recommend that good ventilation be provided in areas where Dacron can be incinerated safely to elevated temperature. Waste materials of Dacron can be incinerated safely in conventional furnaces. Dacron is not readily biodegradable and contains no significant percentage of materials extractable in water so its effect on ground water in case of landfill disposal should be negligible.

Identity: Flexible Polyurethane Foam Foam Filter

Chemical Characteristics
Flexible polyurethane (PU) foams are polyaddition products made of isocyanates and polyether or polyester polyols, with the aid of blowing agents (CO₂ from the isocyanate/water reaction) and modified by catalysts, stabilizers and other additives, the raw materials react together under heat to form a host of foam products.

The member companies of the VWI do not use any blowing agents in the production of flexible polyurethane foam, which are prohibited under German CFC-halon regulations.

Physical Specifications
Density: 18-300 kg/m³
Condition at 20 deg C: Flexible, open-cell foam
Decomposition Temperature: ≥180˚C  
Smell: Faint odor

PU flexible foam does not rank among the dangerous substances listed in the German regulations on chemicals (§ 19, section 2 Chemikaliengesetz) as well as the regulation of classification, packaging, and labeling of dangerous substances (§ 8 Gefahrstoffverordnung) and therefore labeling is not mandatory. As PU flexible foam is not classified as a dangerous substance and additionally is categorized as a product in the German regulations on chemicals (§ 3 Chemikaliengesetz) no safety data sheet according to the German regulations of classification, packaging and labeling of dangerous substances (§ 14 Gefahrstoffverordnung) is needed.

Handling

Transport: No special precautions are necessary for the transport of PU flexible foam. The product is not subject to the German regulations concerning the transport of hazardous materials (Gefahrgutverordnung—Strabe).

Processing: In the production of PU flexible foam, attention is paid to the general regulations and guidelines concerning working conditions, machinery safety and personal protection, which include:
- The German technical working substance law (Gesetz Ober technische Arbeitsmittel)
- The regulations for accident prevention of the German employer’s liability insurance associations (Unfallverhütungsvorschriften der Berufsgenossenschaften) of particular industries.
- BG 63 Upholstery machines (Leather industry)
- VBG 71 Plating, cutting and sewing machines (Leather industry)
- VBG 81 Processing adhesive substances (Chemical industry)

No further measures specific to the handling of flexible foams are required

Fire Safety During Processing and Storage

The following safety regulations are applicable for the processing and storage of flexible polyurethane foam:

| The general safety procedures of the fire insurers for factories and commercial premises (ASF) | VdS-No.: 2038 1/80 (01) |
| Fire protection guidelines for the processing of synthetic materials. | VdS-No.: 2020 10/74 |
| Particular safety precautions for companies producing or producing and processing polyurethane-based flexible foam blocks. | VdS-No.: 2053 12/88 |
| Particular safety precautions for companies producing or producing and processing upholstery material and manufacturing upholstered furniture | VdS-No.: 20491/82 |
| Guidelines concerning sprinkler systems, the planning and installation thereof, and fire hazard classification for PU flexible foam processing BG 3.2 (appendix A1) & PU Flexible foam storage BG 434 (appendix A2) | VdS-No.: 2092 6/87 |

VDS Documents are available from:
Verband der Sachversicherer e.V. (VdS)
Formularstelle
Postfach 10 37 53
50477 Koln
These regulations were jointly produced by the fire committee of the German Association of Non-Life Insurers (VdS) and the insurance committee of the Confederation of German Industry (Bundesverband der Deutschen industrie). The regulations cover:

- Storage of foam blocks
- Separation of factory divisions
- Electrical installations
- Extinguishing equipment
- Welding, blow-torch, cutting and other open-flame work
- Cutting machines
- Storage of combustible materials
- Smoking bans
- Electric heaters
- Cooperation with the fire brigade
- Instructions for company employees

### Fire Protection

| Inflammation temperature: ≥400°C | Fire classification according to DIN 4102: B3 (for grades without flame prevention additives) |

Fire Protection Measures: Keep away from ignition sources. Otherwise, follow corresponding regulations (see Process ing and Storage)

### Procedure In Case of Fire

PU flexible foam is combustible. It burns differently according to the particular foam grade. Fires can be fought with all common extinguishing materials, e.g. water (also with foam additives). CO₂ or dry powder.

In case of fire, thick smoke is to be expected. It is therefore advisable to use gas masks and breathing equipment during fire fighting. Depending on the conditions under which the foam is burning, it will contain elements of soot, carbon monoxide, nitrogen oxides, hydrogen cyanide and organic pyrolysis products. Otherwise PU foam behaves similarly to other organic products (e.g. wool, wood, etc.). In the case of foam grades with flame prevention additives, further corrosive conflagration gases, such as hydrogen chloride, must be expected.

A study carried out by the University of Karlsruhe, Germany, on behalf of the European raw material producers, acknowledged the safety of extinguishing water entering surface water or public drains. The test set-up was based on actual fire conditions. An analysis of the extinguishing water showed that concentrations of all potentially hazardous materials were below the legal limit. All substances to be found in the extinguishing water can be filtered and decomposed in communal sewage plants. Living organisms in the water are not endangered.

### Toxicology

According to the latest research findings, PU foam is physiologically safe.

The basic materials used in the production of PU foam contain neither Cadmium, nitrosamines, formaldehyde, asbestos, PCB (polychlorinated biphenylene), PCP (pentachlorophenol), nor monomers such as styrene or vinyl chloride. The finished foam products are therefore also free of the aforementioned substances. Furthermore, PU foams do not contain free toluylene di-isocyanate (TDI).

### Ecological Aspects and Waste Disposal

According to particular grade PU flexible foam decomposes either very slowly or not at all. It is not listed among those waste materials which "require particular observation" under German law. Polyurethane waste has the classification number 57110 in Germany and requires no special precautions. The waste foam materials can be disposed of either in normal household waste landfills or modern incineration plants.

<table>
<thead>
<tr>
<th>Identity:</th>
<th>Ienite Polyethylene 808A</th>
<th>Standpipe Cap</th>
</tr>
</thead>
</table>
| Polymer Molding, Inc. | Emergency Phone No.: (814) 455-8085 | }

*Des-Case Corporation Disposable Breathers MSDS*
Product Name: "Ienite" Polyethylene 808A
Ingredients: Polyethylene homopolymer

Physical Data
Physical Form: Solid   Color: Varies with Formulation   Odor: Odorless
Odor Threshold: n.a.   Specific Gravity (water=1): <1   Vapor Pressure: Negligible
Vapor Density: (Air=1): n.a.   Evaporation Rate: n.a.   Boiling Point: n/a
Softening Point: Varies with Formulation   Viscosity at Ambient Temperature: n.a.
Octanol/Water Partition Coefficient: n.a.   Flash Point: n/a, combustible solid

Fire and Explosion Hazard Data
Extinguishing Media: Water spray, dry chemical   Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing
Hazardous Combustion Products: Carbon dioxide, carbon monoxide
Unusual Fire and Explosion Hazards: Powdered material may form explosive dust-air mixtures.

Reactivity Data
Stability: Stable   Incompatibility: Material can react with strong oxidizing agents.   Hazardous Polymerization: Will not occur

Health Hazards
Inhalation   If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Eyes   Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.
Skin   If burned with molten material, cool as quickly as possible. Do not peel material from skin.
Ingestion   Material is not expected to be absorbed from the gastrointestinal tract so that induction of vomiting should not be necessary.
Carcinogenicity   n.a.

Handling and Disposal
Accidental Release Measures: Sweep or scoop up and remove
Waste Disposal Method: Solid waste disposal
Handling and Storage: Disposal of product may be subject to federal, state or local laws. Incinerate.

Identity:
Parker Hannifin Corp., O-Ring Division
1360 Palumbo Drive, PO Box 11751
Lexington, KY 40512
Trade Name: O-Lube
Trade Name: Parker O-Lube

Petroleum Grease
O-Ring Seal

Ingredients and Recommended Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>% WT.</th>
<th>CAS No.</th>
<th>NFPA (HMIS) Code:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium Soap - Insoluble</td>
<td>25-30%</td>
<td>#68201-19-4</td>
<td>Health-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Flammability-0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reactivity-0</td>
</tr>
<tr>
<td>Petroleum Naphthenic Oil</td>
<td>70-75%</td>
<td>#68201-19-4</td>
<td>Health-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Flammability-0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reactivity-0</td>
</tr>
</tbody>
</table>

Physical Data
Boiling Point (Deg. F): 700   Specific Gravity: Less than 1.0 (.9007 to .9129)
Grease Number #2 NLGI   ASTM Drop Point: 400°F min.
Pour Point (open cup): 435°F min.   Ash Sulfate 14.25% max.
Fire Point: 485°F min.   Water Content 0.2% max.
ASTM D217 Penetration @ 77°F: 265-295   Appearance and Odor Semi-Solid, Amber Color, No Odor
Note: Classed as a combustible liquid, Class III B

Special Protection Information
Respiratory Protection (Specify type): Not required under normal use.

Eye Protection: Not required under normal use.

Ventilation: Local Exhaust: N/A
Special: N/A
Mechanical: Recommended
Other: N/A

Protective Gloves: Oil resistant gloves such as Nitrile or Neoprene Rubber.

Fire and Explosion Data

Flash Point (Method Used): 435°C (Open Cup)
Flammable Limits: N/A
Extinguishing Media: Carbon dioxide, Foam and Dry Chemical

Special Fire Fighting Procedure: Wear self-contained breathing apparatus, water or foam may cause frothing which can be violent, especially if sprayed into containers of hot burning liquid.

Unusual Fire and Explosion Hazards: Never use welding or cutting torch on or near (even empty) container because product (even just residue) can ignite explosively.

Spill or Leak Procedures

Steps to be taken in case material is released or spilled
Small Spill: Collect in beaker.
Large Spill: Persons not wearing protective equipment should be excluded from area of spill cleanup has been completed.
Shovel material into container. Remaining material taken up with absorbent material.

Waste Disposal Method: Dispose of in accordance with local, state and federal regulations.

Health Hazard Data

Threshold Limit Value: 5 mg/m³
Permissible Exposure Level: 5 mg/m³

Effects on Overexposure
Eyes: Moderate irritation, redness, tearing
Skin: Slight irritation
Swallowing: Gastric intestinal irritation, nausea, vomiting & diarrhea
Inhalation: None known.

Emergency & First Aid Procedure
Ingestion: Immediately drink 2 glasses of water, induce vomiting, medical attention.
Eyes: Flush with large amounts of water, lifting eye lids occasionally, seek medical attention.
Skin: Wash exposed area with soap & water.
Inhalation: N/A

Reactivity Data

Stability: Stable
Conditions to Avoid: Temperatures over 600°F
Incompatibility (Materials to avoid): Strong Oxidizers
Hazardous Decomposition Product: Carbon Monoxide - Carbon Dioxide and various hydrocarbons
Hazardous Polymerization: Will not occur.

Special Precautions

Precautions to be taken in Handling and Storing: Normal precautions - avoid fire hazards.
Other Precautions: None.

If you require additional information regarding any legal or regulatory requirement referred to in this MSDS, we suggest that you consult with an appropriate regulatory agency or with a professional with expertise in the area.

This information is taken from sources or based upon data believed to be reliable; however, Des-Case Corporation makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions.