1. Product and company identification

Common name: PX 4005
Material uses: Dispersant / Detergent
Supplier/Manufacturer: Dorf Ketal Chemicals LLC
3727 Greenbriar, Suite 114
Stafford, TX 77477
U.S.A.
Phone 1-888-604-5698
Fax: 281 491 3373

In case of emergency: CHEMTREC, U.S.: (800) 424-9300 International: (703) 527-3887

2. Hazards identification

Physical state: Liquid. [Viscous liquid.]
Odor: Mild.
Color: Brown.
Hazard status: This material is classified as hazardous under OSHA regulations.
Emergency overview:

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.

Potential acute health effects

Eyes: No known significant effects or critical hazards.
Skin: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

Potential chronic health effects
Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
Mutagenic effects: Not available.
Teratogenic effects: Not available.

Medical conditions aggravated by over-exposure: None known.

See toxicological information (section 11)

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>No hazardous ingredient</td>
</tr>
</tbody>
</table>

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4. First aid measures

**Eye contact**
- Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

**Skin contact**
- Wash with soap and water. Get medical attention if symptoms occur.

**Inhalation**
- If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.

**Ingestion**
- Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Notes to physician**
- No specific antidote. Medical staff must contact Poison Control Center.

**Protection of first-aiders**
- No action shall be taken involving any personal risk or without suitable training.

5. Fire-fighting measures

**Flammability of the product**
- May be combustible at high temperature.

**Products of combustion**
- No specific data.

**Extinguishing media**

**Suitable**
- Use an extinguishing agent suitable for the surrounding fire.

**Not suitable**
- None known.

**Special exposure hazards**
- In a fire or if heated, a pressure increase will occur and the container may burst.

**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.

6. Accidental release measures

**Personal precautions**
- No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. 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 and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

7. Handling and storage

**Handling**
- Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

Engineering measures: No special ventilation requirements. 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 any recommended or statutory limits.

Eyes: Safety glasses.
Skin: Lab coat.
Respiratory: A respirator is not needed under normal and intended conditions of use.
Hands: Disposable vinyl gloves.

HMIS Code/Personal protective equipment: A

Personal protection in case of a large spill: Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear.

Hygiene measures: Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

9. Physical and chemical properties

Physical state: Liquid. [Viscous liquid.]
Flash point: Closed cup: 190°C (374°F) [Pensky-Martens.]
Color: Brown.
Odor: Mild.
Relative density: 0.93
Viscosity: Kinematic: 3.05 cm²/s (305 cSt)
Solubility: Partially soluble in the following materials: cold water and hot water.

10. Stability and reactivity

Stability and reactivity: The product is stable.
Incompatibility with various substances: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization: Will not occur.
Conditions of reactivity: Not available.
11. Toxicological information

**Toxicity data**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>PX 4005</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;5 g/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;15 g/kg</td>
</tr>
</tbody>
</table>

**Acute Effects**
- **Eyes**: No known significant effects or critical hazards.
- **Skin**: No known significant effects or critical hazards.
- **Inhalation**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

**Potential chronic health effects**
- Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
- Mutagenic effects: Not available.
- Teratogenic effects: Not available.

12. Ecological information

**Environmental precautions**: No known significant effects or critical hazards.

**Products of degradation**: Not available.

13. Disposal considerations

**Waste disposal**: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

**Regulatory information**

UN/ IMDG/ IATA  DOT : Not regulated.

15. Regulatory information

**United States**
- **HCS Classification**: Not regulated.
- **U.S. Federal regulations**: United States inventory (TSCA 8b): All components are listed or exempted.
  - SARA 302/304/311/312 extremely hazardous substances: No products were found.
  - SARA 302/304 emergency planning and notification: No products were found.
  - SARA 302/304/311/312 hazardous chemicals: No products were found.
  - SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.
  - Clean Water Act (CWA) 307: No products were found.
  - Clean Water Act (CWA) 311: No products were found.
  - Clean Air Act (CAA) 112 accidental release prevention: No products were found.
  - Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
  - Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

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State regulations:
- Connecticut Carcinogen Reporting: This material is not listed.
- Connecticut Hazardous Material Survey: This material is not listed.
- Florida substances: This material is not listed.
- Illinois Chemical Safety Act: This material is not listed.
- Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.
- Louisiana Reporting: This material is not listed.
- Louisiana Spill: This material is not listed.
- Massachusetts Spill: This material is not listed.
- Massachusetts Substances: This material is not listed.
- Michigan Critical Material: This material is not listed.
- Minnesota Hazardous Substances: This material is not listed.
- New Jersey Hazardous Substances: This material is not listed.
- New Jersey Spill: This material is not listed.
- New Jersey Toxic Catastrophe Prevention Act: This material is not listed.
- New York Acutely Hazardous Substances: This material is not listed.
- New York Toxic Chemical Release Reporting: This material is not listed.
- Pennsylvania RTK Hazardous Substances: This material is not listed.
- Rhode Island Hazardous Substances: This material is not listed.
- California prop. 65: No products were found.

International lists:
- All components listed are listed on major international inventories or exempted from being listed in Australia (AICS), Europe (EINECS/ELINCS), Korea (TCCL), Japan (METI/MOL), Philippines (RA6969).

16. Other information

Label requirements (U.S.A.): NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

Hazardous Material Information System (U.S.A.):

| Physical Hazard | 0 |
| Fire hazard     | 1 |
| Health          | 0 |
| Personal protection | A |

HMIS RATING

HAZARD RATINGS
- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

National Fire Protection Association (U.S.A.):

Flammability
- Health: 0
- Reactivity: 0
- Special: 1

References:

Date of issue: 05/15/2007
Version: 1

Notice to reader
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.