1. Chemical Product and Company Information

Penta International Corp.

Company: The Chemistry Store 1133 Walter Price St., Cayce SC 29033
Emergency Contact: Infotrac (800)535-5053 24-hrs

Product Name: POLYSORBATE 80
Product Code: 16-61200

Molecular Formula: N/A
Molecular Weight: N/A
CAS#: 9005-65-6
FEMA#: 2917

2. Hazardous Ingredient(s)
Contains: SEE ABOVE

3. Physical Properties

<table>
<thead>
<tr>
<th>Physical State: LIQUID</th>
<th>% Volatile: N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor: CHARACTERISTIC</td>
<td>Melting Point (°C): 25</td>
</tr>
<tr>
<td>Color: COLORLESS TO YELLOW</td>
<td>Vapor Density (Air = 1): &gt;1.0</td>
</tr>
<tr>
<td>Solubility in Water: SOLUBLE</td>
<td>Refractive Index @ 20°C: N/A</td>
</tr>
<tr>
<td>Boiling Point (°C): 100</td>
<td>Water Content: N/A</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg @ 20°C): &lt;1.0</td>
<td>Alcohol Content: N/A</td>
</tr>
<tr>
<td>Specific Gravity @ 25°C (H2O=1.0): 1.07</td>
<td></td>
</tr>
</tbody>
</table>

4. Physical Hazard Data

<table>
<thead>
<tr>
<th>Flash Point (°F): 200+</th>
<th>Method Used: CC</th>
</tr>
</thead>
<tbody>
<tr>
<td>L.F.L: N / A</td>
<td>U.F.L: N / A</td>
</tr>
<tr>
<td>DOT</td>
<td>NON-REGULATED</td>
</tr>
<tr>
<td>IMDG</td>
<td>NON-REGULATED</td>
</tr>
<tr>
<td>IATA</td>
<td>NON-REGULATED</td>
</tr>
</tbody>
</table>

Extinguishing Media: Carbon Dioxide; Dry Chemical; Universal Type Foam
Special Fire Fighting Procedures: Evacuate unprotected and untrained personnel. Trained firefighting personnel should be equipped with self-contained breathing apparatus and full protective gear.

Unusual Fire, Explosion and Stability Hazards: SEALED CONTAINERS MAY BUILD UP PRESSURE AT HIGH TEMPERATURES. IF POSSIBLE, KEEP CONTAINERS COOL WITH WATER SPRAY. CARBON DIOXIDE AND CARBON MONOXIDE PRODUCED UPON COMBUSTION.
5. Health Hazard Data

Carcinogenicity:
NTP: NO  OSHA: NO  IARC MONOGRAPH: NO
OSHA PEL: NOT ESTABLISHED  ACGIH TLV: NOT ESTABLISHED

Acute Toxicity Data:
ORAL LD50: NOT ESTABLISHED
DERMAL LD50: NOT ESTABLISHED
INHALATION LC50: NOT ESTABLISHED

Health Hazards (Acute and Chronic):
Skin Contact: MAY CAUSE IRRITATION.
Inhalation: NOT ESTABLISHED
Eye Contact: MAY CAUSE IRRITATION
Ingestion: NOT ESTABLISHED

Other Effects:
The health hazard information is based on laboratory animal test data for the individual
components of this product in their pure form as provided under 29 CFR 1910.1200
(d)(5)(ii).  The user should consider the relevancy of this information in a manner
consistent with its particular purpose.

6. Emergency First Aid Procedures

Eyes: IMMEDIATELY FLUSH EYES WITH LARGE QUANTITIES OF COLD CLEAN
WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY.

Skin: WASH WITH SOAP AND WATER. FLUSH WITH LARGE QUANTITIES OF
WATER. IF IRRITATION PERSISTS CALL A PHYSICIAN.

Inhalation: REMOVE TO FRESH AIR AND CALL A PHYSICIAN IF NECESSARY.

Ingestion: ADMINISTER WATER OR MILK TO DILUTE. CONTACT A PHYSICIAN OR
LOCAL POISON CONTROL CENTER IMMEDIATELY. DO NOT INDUCE VOMITING.

7. Reactivity Data
This material presents no significant hazard. Hazardous Polymerization will not occur and it will
not react violently with water.
Contact with highly reactive chemical oxidants should be avoided. If burned this product will
produce carbon monoxide and/or carbon dioxide.
8. Personal Protection

Eyes: IN GENERAL, THE USE OF SAFETY GLASSES IS RECOMMENDED. IF THE MATERIAL IS TO BE HANDLED IN A MANNER WHERE SPLASHING MAY OCCUR, THE USE OF SPLASH GOGGLES OR FACE SHIELD IS RECOMMEND.

Respiratory: IN WELL VENTILATED AREAS RESPIRATORY PROTECTION IS NOT NORMALLY REQUIRED. IN CONFINED, POORLY VENTILATED AREAS THE USE OF NIOSH-APPROVED RESPIRATORY PROTECTION MAYBE REQUIRED OR IF MATERIAL IS RATED TOXIC BY INHALATION.

Equipment and Apparel: THE USE OF CHEMICAL RESISTANT GLOVES IS RECOMMENDED. ACCEPTABLE INDUSTRIAL HYGIENE PRACTICES SHOULD BE MAINTAINED. LIMIT EXPOSURE TO PRODUCT WHENEVER POSSIBLE. WASH AFTER ANY CONTACT. THOROUGHLY WASH ANY CONTAMINATED CLOTHING OR SHOES.

Ventilation: VENTILATION MEETING ACGIH STANDARDS SHOULD BE EMPLOYED.

9. Storage and Handling

IT IS RECOMMENDED THAT THIS MATERIAL BE STORED IN TIGHT FULL CONTAINERS IN A COOL, DRY PLACE AWAY FROM LIGHT.

10. Spill, Release and Waste Disposal Procedures

REMOVE ANY SOURCES OF FLAME OR SPARKS. IF IN A CONFINED AREA NIOSH APPROVED RESPIRATORY PROTECTION MAY BE REQUIRED. ABSORB SPILLS ON VERMICULITE OR OTHER SUITABLE ABSORBENT MATERIAL AND REMOVE TO AN APPROVED DISPOSAL CONTAINER. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

11. Regulatory

US FEDERAL

HMIS III: PHYSICAL HAZARD: 1
HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0 PERSONAL PROTECTION: X

TSCA

CAS# 9005-65-6 IS LISTED ON THE TSCA INVENTORY.

HEALTH & SAFETY REPORTING LIST

NONE OF THE CHEMICALS ARE ON THE HEALTH & SAFETY REPORTING LIST.

CHEMICAL TEST RULES

NONE OF THE CHEMICALS IN THIS PRODUCT ARE UNDER A CHEMICAL TEST RULE.

SECTION 12B

NONE OF THE CHEMICALS ARE LISTED UNDER TSCA SECTION 12B.

TSCA SIGNIFICANT NEW USE RULE

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE A SNUR UNDER TSCA.

CERCLA HAZARDOUS SUBSTANCES AND CORRESPONDING RQS

NONE OF THE CHEMICALS IN THIS MATERIAL HAVE AN RQ.
SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES
   NONE OF THE CHEMICALS IN THIS PRODUCT HAVE A TPQ.
SECTION 313   NO CHEMICALS ARE REPORTABLE UNDER SECTION 313.
CLEAN AIR ACT:
   THIS MATERIAL DOES NOT CONTAIN ANY HAZARDOUS AIR POLLUTANTS.
   THIS MATERIAL DOES NOT CONTAIN ANY CLASS 1 OZONE DEPLETORS.
   THIS MATERIAL DOES NOT CONTAIN ANY CLASS 2 OZONE DEPLETORS.
CLEAN WATER ACT:
   NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS HAZARDOUS
   SUBSTANCES UNDER THE CWA.
   NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS PRIORITY
   POLLUTANTS UNDER THE CWA.
   NONE OF THE CHEMICALS IN THIS PRODUCT ARE LISTED AS TOXIC POLLUTANTS
   UNDER THE CWA.
OSHA:
   NONE OF THE CHEMICALS IN THIS PRODUCT ARE CONSIDERED HIGHLY
   HAZARDOUS BY OSHA.
STATE
CAS# 9005-65-6  IS NOT PRESENT ON STATE LISTS FROM CA, PA, MN, MA, FL, OR NJ.
CALIFORNIA PROP 65
CALIFORNIA NO SIGNIFICANT RISK LEVEL: NONE OF THE CHEMICALS IN THIS
PRODUCT ARE LISTED.

EUROPEAN/INTERNATIONAL REGULATIONS
EUROPEAN LABELING IN ACCORDANCE WITH EC DIRECTIVES
HAZARD SYMBOLS:
   NOT AVAILABLE.
RISK PHRASES:
R 36/38 IRRITATING TO SKIN AND EYES.
SAFETY PHRASES:
S 7/8   KEEP CONTAINER TIGHTLY CLOSED AND DRY
S16    KEEP AWAY FROM SOURCES OF IGNITION – NO SMOKING
S 24/25 AVOID CONTACT WITH SKIN AND EYES.
S 37    WEAR SUITABLE GLOVES
S 39    WEAR EYE/FACE PROTECTION
WGK (WATER DANGER/PROTECTION)
   CAS# 9005-65-6
CANADA - DSL/NDSL
   CAS# 9005-65-6
CANADA - WHMIS
   WHMIS: NOT AVAILABLE.
THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD
CRITERIA OF THE CONTROLLED PRODUCTS REGULATIONS AND THE MSDS
CONTAINS ALL OF THE INFORMATION REQUIRED BY THOSE REGULATIONS.
12. Disclaimer

Material Safety Data Sheet prepared by: Penta

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Penta’s control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the product’s improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in this MSDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.