MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet conforms to the requirements of ANSI Z400.1, using the International Chemical Safety Cards of the Global Harmonizing System. THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (HAZAR D COMMUNICATION STANDARD) IMPORTANT: Read this MSDS before handling & disposing of this product. Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

PRODUCT IDENTITY: CROWN TOLUOL (TOLUENE)
COMPANY IDENTITY: PACKAGING SERVICE CO. INC.
COMPANY ADDRESS: 1904 MYKAWA ROAD.
COMPANY CITY: PEARLAND, TX 77581
COMPANY PHONE: 1-281-485-1458
CHEMTREC PHONE: 1-800-424-9300

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CONTAINS: 99-100% TOLUENE (108-88-3)[203-625-9]
Number in parentheses is CAS #, number in brackets is European EC #.

TOLU01

SECTION 3. HAZARDS IDENTIFICATION

EXPOSURE PREVENTION: STRICT HYGIENE!
AVOID EXPOSURE OF (PREGNANT) WOMEN!

RISK STATEMENTS:
R36/37/38 Irritating to eyes, respiratory system and skin.
R48 Harmful: danger of serious damage to health by prolonged exposure.
R20/65 Harmful by inhalation, may cause lung damage if swallowed.
R11/13 Highly Flammable! Serious static electricity fire hazard!
R63 Possible risk of harm to the unborn child.
R67 Vapors may cause drowsiness and dizziness.

SAFETY STATEMENTS:
S36/37 Wear suitable protective clothing and gloves.
S46 If swallowed, seek medical advice immediately, and show this container or label.
S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

SECTION 4. FIRST AID MEASURES

EYE CONTACT: For eyes, flush with plenty of water for 15 minutes & get medical attention.

SKIN CONTACT: In case of contact with skin immediately remove contaminated clothing. Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

INHALATION: After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

SWALLOWING: Rinse mouth. Do NOT induce vomiting. GET MEDICAL ATTENTION IMMEDIATELY. Do NOT give liquids to an unconscious or convulsing person.
SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSION PREVENTIVE MEASURES

NO open flames, NO sparks, & NO smoking. Use a closed system, ventilation, explosion-proof electrical equipment, lighting. Do NOT use compressed air for filling, discharging, or handling.

EXTINGUISHING MEDIA

Use dry powder, AFFF, foam, carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES

HIGHLY FLAMMABLE!! VAPORS CAN CAUSE FLASH FIRE

Keep container tightly closed. Isolate from oxidizers, heat, sparks, electric equipment & open flame. Closed containers may explode if exposed to extreme heat. Applying to hot surfaces requires special precautions.

Empty container very hazardous! Continue all label precautions!

SECTION 6. ACCIDENTAL RELEASE MEASURES


Remove all ignition sources. Use self-contained breathing apparatus.

CONTAINMENT AND CLEAN-UP MEASURES: Stop spill at source. Dike and contain. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent. Remove to safe place. Do NOT wash away into sewer. Do NOT let this chemical enter the environment.

SECTION 7. HANDLING AND STORAGE

HANDLING

Isolate from oxidizers, heat, sparks, electric equipment & open flame. Use only with adequate ventilation. Avoid breathing of vapor or spray mist. Avoid contact with skin & eyes. Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear gloves, apron & footwear impervious to this material. Wash clothing before reuse. Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, saw, drill, braze, or weld. Empty container very hazardous! Continue all label precautions!

STORAGE

Keep in fireproof surroundings. Keep separated from strong oxidants. Do not store above 49 C/120 F. Keep container tightly closed & upright when not in use to prevent leakage.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

RESPIRATORY EXPOSURE CONTROLS

A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator’s use.

VENTILATION

LOCAL EXHAUST: Necessary
MECHANICAL (GENERAL): Acceptable
SPECIAL: None
OTHER: None


PERSONAL PROTECTIONS:

Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear gloves, apron & footwear impervious to this material. Wash clothing before reuse.
WORK & HYGIENIC PRACTICES:
Provide readily accessible eye wash stations & safety showers. Wash at end of each workshift & before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

SECTION 9. PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPEARANCE</td>
<td>Liquid, Water-White</td>
</tr>
<tr>
<td>ODOR</td>
<td>Aromatic</td>
</tr>
<tr>
<td>BOILING RANGE</td>
<td>110 111 111°C / 230 231 232°F</td>
</tr>
<tr>
<td>AUTO IGNITION TEMPERATURE</td>
<td>536°C / 997°F (Lowest Component)</td>
</tr>
<tr>
<td>LOWER FLAMMABLE LIMIT IN AIR (% by vol)</td>
<td>1.4</td>
</tr>
<tr>
<td>FLASH POINT (TEST METHOD)</td>
<td>7°C / 45°F (TCC)</td>
</tr>
<tr>
<td>FLAMMABILITY CLASSIFICATION:</td>
<td>Class I B</td>
</tr>
<tr>
<td>GRAVITY @ 68/68°F / 20/20°C:</td>
<td>31.1</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY (Water=1)</td>
<td>0.870</td>
</tr>
<tr>
<td>POUNDS/GALLON</td>
<td>7.247</td>
</tr>
<tr>
<td>VOC'S (&gt;0.44 Lbs/Sq In)</td>
<td>100.0 Vol. % / 870.0 g/L / 7.247 Lbs/Gal</td>
</tr>
<tr>
<td>TOTAL VOC'S (TVOC)</td>
<td>100.0 Vol. % / 870.0 g/L / 7.247 Lbs/Gal</td>
</tr>
<tr>
<td>NONEXEMPT VOC'S (CVOC)</td>
<td>100.0 Vol. % / 870.0 g/L / 7.247 Lbs/Gal</td>
</tr>
<tr>
<td>HAZARDOUS AIR POLLUTANTS (HAPS)</td>
<td>100.0 Wt. % / 870.0 g/L / 7.247 Lbs/Gal</td>
</tr>
<tr>
<td>VAPOR PRESSURE (mm of Hg)@20°C</td>
<td>23.0</td>
</tr>
<tr>
<td>NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20°C)</td>
<td>23.0</td>
</tr>
<tr>
<td>VAPOR DENSITY (air=1)</td>
<td>3.2</td>
</tr>
<tr>
<td>WATER ABSORPTION</td>
<td>Negligible</td>
</tr>
<tr>
<td>REFRACTIVE INDEX</td>
<td>1.495</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY & REACTIVITY

STABILITY
Stable under normal conditions.

CONDITIONS TO AVOID
Isolate from oxidizers, heat, sparks, electric equipment & open flame.

MATERIALS TO AVOID
React violently with strong oxidants, causing fire & explosion hazard. Attacks many plastics, coatings.

HAZARDOUS DECOMPOSITION PRODUCTS
Carbon Monoxide, Carbon Dioxide from burning.

HAZARDOUS POLYMERIZATION
Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS #</th>
<th>TWA (OSHA)</th>
<th>TLV (ACGIH)</th>
<th>HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>200 ppm</td>
<td>50 ppm A4 Yes</td>
<td></td>
</tr>
</tbody>
</table>

In addition to EPA Hazardous Air Pollutants showing "Yes" under "HAP" above, using manufacturers' data, based on EPA Method 311, the following EPA Hazardous Air Pollutants may be present in trace amounts (less than 0.1%): Benzenes, Mixed Xylenes, Ethylbenzene

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS #</th>
<th>CEILING</th>
<th>STEL(OSHA/ACGIH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None Known</td>
<td>None Known</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ACUTE HAZARDS

EYE & SKIN CONTACT: Primary irritation to skin, defatting, dermatitis. Absorption thru skin increases exposure. Primary irritation to eyes, redness, tearing, blurred vision. Liquid can cause eye irritation. Wash thoroughly after handling.

INHALATION: Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression. Vapor harmful. Acute overexposure can cause harm to kidneys, blood, nerves, liver, lungs. Use of alcoholic beverages enhances the harmful effect.

SWALLOWING: Harmful or fatal if swallowed. Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea. The symptoms of chemical pneumonitis may not show up for a few days.

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED
Chronic overexposure can cause harm to kidneys, blood, nerves, liver, lungs. Persons with severe skin, liver or kidney problems should avoid use.

CHRONIC HAZARDS

CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS: Pregnant women should avoid use. May cause birth defects. Leukemia been reported in humans from Benzene. This product contains less than 300 ppm of Benzene. Not considered hazardous in such low concentrations. Absorption thru skin may be harmful. Studies with laboratory animals indicate this product can cause damage to fetus. Depending on degree of exposure, periodic medical examination is indicated.

SECTION 12. ECOLOGICAL INFORMATION

MAMMALIAN INFORMATION:

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS #</th>
<th>LOWEST KNOWN LETHAL DOSE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>LOWEST KNOWN LD50 (ORAL) 3000.0 mg/kg (Rats)</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>LOWEST KNOWN LC50 (VAPORS) 5300 ppm (Mice)</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>LOWEST KNOWN LD50 (SKIN) 4000.0 mg/kg (Rabbits)</td>
</tr>
</tbody>
</table>

AQUATIC ANIMAL INFORMATION: The most sensitive known aquatic group to any component of this product is: Juvenile Rainbow Trout are adversely affected by components of this product. The substance is toxic to aquatic organisms.

MOBILITY
This material is a mobile liquid.

DEGRADABILITY
This product is nonbiodegradable.

ACCUMULATION
This product does not accumulate or biomagnify in the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION

DOT SHIPPING NAME: UN1294,Toluene,3,PG-II
DRUM LABEL: (FLAMMABLE LIQUID)
TOLU01 

SECTION 15. REGULATORY INFORMATION

EPA REGULATION:
SARA SECTION 311/312 HAZARDS: Acute Health, Fire

All components of this product are on the TSCA list.
SARA Title III Section 313 Supplier Notification
This product contains the indicated <*> toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986 & of 40 CFR 372. This information must be included in all MSDSs that are copied and distributed for this material.

SARA TITLE III INGREDIENTS      CAS#      WT. % (REG. SECTION)   RQ(LBS)
*Toluene                                108-88-3  100 (311,312,313,RCRA)    1000

> 1000 LB / 454 KG OF THIS PRODUCT IN 1 CONTAINER EXCEEDS THE "RQ" OF TOLUENE.
Any release equal to or exceeding the RQ must be reported to the National Response Center (800-424-8802) and appropriate state and local regulatory agencies as described in 40 CFR 302.6 and 40 CFR 355.40 respectively. Failure to report may result in substantial civil and criminal penalties. State & local regulations may be more restrictive than federal regulations.

STATE REGULATIONS:
CALIFORNIA PROPOSITION 65: This product contains the following chemical known to the State of California to cause reproductive toxicity: Toluene

INTERNATIONAL REGULATIONS
The components of this product are listed on the chemical inventories of the following countries: Australia, Canada, China, Europe (EINECS), Japan, Korea, United Kingdom.

SECTION 16. OTHER INFORMATION

HAZARD RATINGS:
HEALTH (NFPA): 1,    HEALTH (HMIS): 2,    FLAMMABILITY: 3,    REACTIVITY: 0
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

EMPLOYEE TRAINING
See Section 3 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this MSDS) before handling it.

NOTICE
The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications.
All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.
Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.
Unless updated, this Material Safety Data Sheet is valid until 10/16/2011.