## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Valium Reagent  
**PRODUCT NUMBER(S):** 925 (1006344), 7625 (1006048)  
**DATE:** May 1, 2012

**TRADE NAME:** Valium Reagent  
**GENERAL USE:** Test Kit  
**CHEMICAL FAMILY:** Dinitrobenzene test

**PRODUCT DESCRIPTION:** Clear liquid first ampoule. Clear liquid second ampoule.

**MANUFACTURED FOR:**  
**COUNTRY:** USA

**ADDRESS (NUMBER, STREET, P.O. BOX):** 13386 International Parkway  
**CITY, STATE AND ZIP CODE:** Jacksonville, FL 32218

**DATE PREPARED:** May 1, 2012

**CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBER**

<table>
<thead>
<tr>
<th>CITY, STATE AND ZIP CODE</th>
<th>CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jacksonville, FL 32218</td>
<td>1-800-255-3924 / 01-813-248-0585</td>
</tr>
<tr>
<td></td>
<td>North America Toll Free International</td>
</tr>
</tbody>
</table>

## SECTION 2 - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>% (by Weight)</th>
<th>CAS #</th>
<th>EINECS #</th>
<th>Hazard Symbol</th>
<th>RISK PHRASES (Full Text Section 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol, 1st Ampoule</td>
<td>&gt;95</td>
<td>67-56-1</td>
<td>200-659-6</td>
<td>(+F)(+T)</td>
<td>R11, R23/24/25, R39/23/24/25</td>
</tr>
<tr>
<td>Potassium Hydroxide, 1st Ampoule</td>
<td>1-5</td>
<td>1310-58-3</td>
<td>215-181-3</td>
<td>(+C)</td>
<td>R22, R35</td>
</tr>
<tr>
<td>Isopropanol, 2nd Ampoule</td>
<td>&gt;95</td>
<td>67-63-0</td>
<td>200-661-7</td>
<td>(+F)(+Xi)</td>
<td>R11, R36, R67</td>
</tr>
<tr>
<td>m-Dinitrobenzene, 2nd Ampoule</td>
<td>&lt;2</td>
<td>99-65-0</td>
<td>202-776-8</td>
<td>(+T)(+N)</td>
<td>R26/27/28, R33, R50/53</td>
</tr>
</tbody>
</table>

Notes: WARNING: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR REPRODUCTIVE HARM. Hazard symbols and risk phrases based on maximum listed concentration of each hazardous ingredient.

## SECTION 3 - Hazards Identification

**EMERGENCY OVERVIEW**
Irritation of eyes, nose, and throat. Splashes in the eyes or on the skin will cause severe skin burns (Ampoule 1). Inhalation of vapors may be injurious to the lungs. Repeated or prolonged exposure to dilute solutions of ampoules may cause irritation of the skin.

**IARC MONOGRAPHS?** No  
**OSHA REGULATED?** No  
**California prop. 65:** This product contains the following ingredients for which the State of California has found to cause reproductive harm (male) which would require a warning under the statute: m-Dinitrobenzene.

**Carcinogenicity:**
<table>
<thead>
<tr>
<th>NTP?</th>
<th>IARC MONOGRAPHS?</th>
<th>OSHA REGULATED?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**POTENTIAL HEALTH EFFECTS**

**INHALATION:**
Irritation of throat. Inhalation of acid vapors may be injurious to the lungs and with repeated inhalation causing chronic irritation/inflammation of nose, throat, and bronchial tubes.

**SKIN:**
Irritation and or burns by direct contact with contents of either ampoule.

**EYES:**
Chronic irritation of eyes, corneal burns are possible with exposure to contents of either ampoule.

**INGESTION:**
HIGHLY TOXIC BY INGESTION - MAY POTENTIALLY BE FATAL. BLINDNESS, KIDNEY DAMAGE, OR LIVER DAMAGE MAY RESULT.

**SECTION 4 - FIRST AID MEASURES**

**INHALATION:**
Remove to fresh air, apply CPR if victim is unconscious, administer oxygen, seek immediate medical attention.

**EYES:**
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek immediate medical attention.

**SKIN:**
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Seek medical attention.

**INGESTION:**
If swallowed, give plenty of water to dilute substances, do not induce vomiting; if conscious, give large quantities of water immediately. If vomiting occurs spontaneously, keep the head below the waist to avoid aspiration.  
Call a physician immediately.
## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME:** Valium Reagent  
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**DATE:** May 1, 2012

### SECTION 5 - FIRE FIGHTING MEASURES

**GENERAL HAZARDS:**  
Product is flammable with the contents of both ampoules having flash point below 73°F (23°C). Potassium Hydroxide is corrosive to many metals with evolution of heat. Heated materials may give off toxic fumes.

**EXTINGUISHING MEDIA:**  
Foam or dry chemical is preferred, but water is acceptable, and is preferred for cooling ampoules.

**FIRE FIGHTING PROCEDURES:**  
Under fire conditions wearing NIOSH/MSA or European EN-149 approved SCBA's or acid gas=organic vapor respirators is required.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**  
Ampoules may rupture under pressure and release flammable contents. Use water to cool containers.

**HAZARDOUS COMBUSTION PRODUCTS:**  
Carbon oxides, potassium oxide fumes, nitrogen oxides

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**  
Wear protective equipment and ventilate area. Use baking soda (sodium bicarbonate) to absorb spill, then discard in hazardous waste container.

### SECTION 7 - HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:**  
Store and handle according to packaged instructions. Store in cool, well ventilated area. Keep away from reactive materials. Avoid breathing vapors and prevent vapor accumulation in enclosed areas.

### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>HAZARDOUS COMPONENTS</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA ppm</td>
<td>TWA mg/m³</td>
<td>STEL ppm</td>
</tr>
<tr>
<td>Methanol, 1st Ampoule</td>
<td>200</td>
<td>260</td>
<td>250</td>
</tr>
<tr>
<td>Potassium Hydroxide, 1st Ampoule</td>
<td>10</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Isopropanol, 2nd Ampoule</td>
<td>400</td>
<td>980</td>
<td>500</td>
</tr>
<tr>
<td>m-Dinitrobenzene, 2nd Ampoule</td>
<td>1</td>
<td></td>
<td>50mg/m³</td>
</tr>
</tbody>
</table>

**PERSONAL PROTECTION**

**RESPIRATORY PROTECTION:**  
Not needed in most cases, as unit is opened and used immediately. If ventilation is insufficient, wear a NIOSH/OSHA or EU approved organic respirator while handling products.

**PROTECTIVE GLOVES:**  
Impervious gloves (neoprene, nitrile) required when any contact potential with contents exists.

**EYE PROTECTION:**  
Do not get in eyes, wear safety glasses with side shield splash protection or chemical goggles.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:**  
An eye wash fountain and safety shower should be readily available where the potential for contact exists.

**WORK / HYGIENIC PRACTICES:**  
Wash thoroughly after handling. Have baking soda on hand to absorb spills.

### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>APPEARANCE AND ODOR</th>
<th>VAPOR PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear liquid first ampoule. Clear liquid second ampoule.</td>
<td>NA</td>
</tr>
<tr>
<td>VOC NE Volatility NE</td>
<td>SPECIFIC GRAVITY (WATER = 1)</td>
</tr>
<tr>
<td>BOILING POINT / BOILING RANGE</td>
<td>SOLUBILITY IN WATER</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>FLASH POINT NR</td>
<td>VISCOSITY</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>FLAMMABLE LIMITS LEL: NR UEL: NR</td>
<td>VAPOR DENSITY (AIR = 1)</td>
</tr>
<tr>
<td>AUTO-IGNITION TEMPERATURE NR</td>
<td>EVAPORATION RATE (BUTYL ACETATE = 1)</td>
</tr>
<tr>
<td>NR</td>
<td>NE</td>
</tr>
</tbody>
</table>
SECTION 10 - STABILITY AND REACTIVITY

STABILITY: STABLE

CONDITIONS TO AVOID:
Excessive heat, light exposure, contact with incompatible materials.

INCOMPATIBILITY (MATERIALS TO AVOID):
Acid contact with most metals corrodes them severely. Contact with oxidizers may result in fire.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:
Carbon oxides, nitrogen oxides.

HAZARDOUS POLYMERIZATION:
Will not occur.

CONDITIONS TO AVOID:
None related to polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS #</th>
<th>EINECS #</th>
<th>LD50 of Ingredient (Specify Species and Route)</th>
<th>LC50 of Ingredient (Specify Species)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol, 1st Ampoule</td>
<td>67-56-1</td>
<td>200-659-6</td>
<td>Oral, rat: LD50 = 5600 mg/kg</td>
<td>64000 ppm/4H (inhalation, rat)</td>
</tr>
<tr>
<td>Potassium Hydroxide, 1st Ampoule</td>
<td>1310-58-3</td>
<td>215-181-3</td>
<td>Oral, rat: LD50 = 273mg/kg</td>
<td>NR</td>
</tr>
<tr>
<td>Isopropanol, 2nd Ampoule</td>
<td>67-63-0</td>
<td>200-661-7</td>
<td>Oral, mouse: LD50 = 3600 mg/kg</td>
<td>Inhalation, Mouse: 53000 mg/m³</td>
</tr>
<tr>
<td>m-Dinitrobenzene, 2nd Ampoule</td>
<td>99-65-0</td>
<td>202-776-8</td>
<td>Oral, rat: LD50 = 59.5 mg/kg. Oral, wild bird: LD50 = 42 mg/kg</td>
<td>Inhalation, rat: LC50 = 3124 ppm/1H.</td>
</tr>
</tbody>
</table>

SECTION 12 - ECOLOGICAL INFORMATION

Product components are known to be harmful to the environment - do not release product to sewers or bodies of water.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

SECTION 14 - TRANSPORT INFORMATION

GROUND SHIPMENT WITHIN USA (DOT):

PROPER SHIPPING NAME: None - Exempted Qty.

CLASS/ PACK GROUP/ LABELING: Class 3 (6.1) with Excepted Qty. marking on package. No class 3 or 6.1 label required.

NOTES: When shipped under 49CFR173.4a, This product is exempt from other labeling and waybill requirements.

GROUND SHIPMENTS TO AND WITHIN CANADA (TDG):

PROPER SHIPPING NAME: None - Limited Quantity (within Canada), See above for US to Canada

CLASS/ PACK GROUP/ LABELING: Phrase "Ltd. Qty." on package. No additional requirements.

NOTES: TDG only used for shipment within Canada, shipments from the US can follow DOT regulations. See TDG Sections 1.17 & 9.

AIR SHIPMENTS (ICAO/IATA):

PROPER SHIPPING NAME: None - (Classified under UN1230 Methanol Solution - Excepted Qty. E2)

CLASS/ PACK GROUP/ LABELING: Class 3 (6.1) with Excepted Qty. marking on package. No class 3 or 6.1 label required.

NOTES: This product is exempt from other labeling and waybill requirements.

OCEAN SHIPMENTS (IMDG):

PROPER SHIPPING NAME: None

CLASS/ PACK GROUP/ LABELING: Class 3 (6.1) with Excepted Qty. marking on package. No class 3 or 6.1 label required.

NOTES: Shipping Paper required with statement "Dangerous Goods in Excepted Quantities" and number of packages.

ALL SHIPMENTS EXCEEDING EXCEPTED QUANTITY / ALTERNATIVE SHIPPING INFORMATION:

PROPER SHIPPING NAME: UN 3316, Chemical Kit

CLASS/ PACK GROUP/ LABELING: Class 9, Pack Group III. Miscellaneous Label

NOTES: Full documentation required.

Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, TDG & UN information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping. Information above does not account for overpacks or outer packings with multiple hazardous materials; consult shipper when multiple materials are shipped. Consult regulations for maximum outer packaging and overpack requirements.
PRODUCT NAME: Valium Reagent
PRODUCT NUMBER(S): 925 (1006344), 7625 (1006048)
DATE: May 1, 2012

SECTION 15 - REGULATORY INFORMATION

TSCA (USA - Toxic Substance Control Act): Ingredients are listed.
SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):
Acute Health: Yes Chronic Health: Yes
Fire: Yes Sudden Release of Pressure: No
Reactive: No

313 REPORTABLE INGREDIENTS: This material contains methanol, m-Dinitrobenzene, and Isopropanol which are subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

CERCLA (USA - Comprehensive Response Compensation and Liability Act): Methanol - 5000 lbs., m-Dinitrobenzene - 100 lbs., Potassium Hydroxide - 1000 lbs.
California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. 1,3-Dinitrobenzene.
State Right to Know: Isopropanol: MA, NJ, PA, RI; 1,3-Dinitrobenzene: MA, NJ, PA; Sodium Hydroxide: ILL, MA, NJ, PA, RI

CCPR (Canadian Controlled Products Regulations): Not Listed.
CIDL (Canadian Ingredient Disclosure List): Not listed.
CDSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List): Not Listed on CDSL.
EINECS (European Inventory of Existing Commercial Chemical Substances): Referenced.

CERCLA (USA - Comprehensive Response Compensation and Liability Act): Methanol - 5000 lbs., m-Dinitrobenzene - 100 lbs., Potassium Hydroxide - 1000 lbs.

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. 1,3-Dinitrobenzene.
State Right to Know: Isopropanol: MA, NJ, PA, RI; 1,3-Dinitrobenzene: MA, NJ, PA; Sodium Hydroxide: ILL, MA, NJ, PA, RI

CCPR (Canadian Controlled Products Regulations): Not Listed.
CIDL (Canadian Ingredient Disclosure List): Not listed.
CDSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List): Not Listed on CDSL.
EINECS (European Inventory of Existing Commercial Chemical Substances): Referenced.

WGK Water Quality Index: 3

RISK PHRASES:
R11 : Highly flammable.
R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed.
R39/23/24/25 : Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R22 : Harmful if swallowed.
R26/27/28 : Very toxic by inhalation, in contact with skin and if swallowed.
R33 : Danger of cumulative effects.
R35 : Causes severe burns
R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SYMBOL(S) REQUIRED FOR EU LABEL
(+F)-Flammable
(+T)-Toxic
(+C)-Corrosive
(+X)-Harmful
(+N)-Harmful To The Environment

SAFETY PHRASES:
S1/2 : Keep locked up and out of the reach of children.
S7 : Keep container tightly closed.
S16 : Keep away from sources of ignition - No smoking.
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 : After contact with skin, wash immediately with . . . (to be specified by the manufacturer).
S36/37/39 : Wear suitable protective clothing, gloves and eyeface protection.
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60 : This material and its container must be disposed of as hazardous waste.
S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

SECTION 16 - OTHER INFORMATION

Legend
N/A = Not Applicable
N/D = Not Determined
N/E = Not Established
N/R = Not Reported

HMIS HAZARD RATINGS
HEALTH:
FLAMMABILITY:
PHYSICAL HAZARD:
PERSONAL PROTECTIVE EQUIPMENT:
3 0 = INSIGNIFICANT
3 1 = SLIGHT
2 2 = MODERATE
C 3 = HIGH
4 = EXTREME

REVISION SUMMARY:
Revised 5/1/2012.

MSDS Prepared by:
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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.