Comet Chemical Company Ltd.
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Materials Safety Data - MINERAL SPIRITS:
Comsol 3139, Comsol DX3139, Comsol 3135, Comsol D3135
(also Stoddart Solvent, De-odourised Mineral Spirits)

UN - 1268
PETROLEUM DISTILLATES, N.O.S.
Class 3; Packing Group III
B 2; D 2B
solvent, diluent, fuel

1. HAZARDOUS INGREDIENTS*

<table>
<thead>
<tr>
<th>CAS NUMBER</th>
<th>%</th>
<th>TWAEV (ppm)</th>
<th>LD50 ORAL (mg/kg)</th>
<th>LD50 SKIN (mg/kg)</th>
<th>LC50 ppm INHALATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>8052-41-3</td>
<td>100%</td>
<td>100</td>
<td>5000</td>
<td>3000</td>
<td>5000</td>
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<tr>
<td>or</td>
<td></td>
<td>200</td>
<td>5000</td>
<td>3000</td>
<td>5000</td>
</tr>
<tr>
<td>64742-47-8</td>
<td>300</td>
<td>5000</td>
<td>3000</td>
<td>5000</td>
<td>5500</td>
</tr>
</tbody>
</table>

NOTE: These various grades or mineral spirits are similar, share the same CAS#, and thus share the same MSDS.

2. PHYSICAL CHARACTERISTICS*

Odour & Appearance
- clear, colourless, liquid, mild petroleum odour (less odour with DX 3139)

Odour Threshold
- not known

Vapour Pressure
- (a) 2.28 mmHg; (b) 2.17 mmHg; (c) 2.24 mmHg; (d) 2.3 mmHg (all at 20°C)

Vapour Density (air = 1)
- (a) 5.0; (b) 4.9; (c) 4.7; (d) 4.8

Boiling Range
- (a) 158°C-195°C; (b) 159°C-195°C; (c) 156°C-178°C; (d) 158°C-177°C

Freezing Point
- (a) -58°C; (b) -55°C; (c) -56°C; (d) -61°C

Specific Gravity
- (a) 0.785; (b) 0.777; (c) 0.784; (d) 0.766 (all at 20°C)

Water Solubility
- nil

*NOTE: This is not meant to be a product specification. The various grades of Mineral Spirits are all identified by the same CAS# and pose the same hazards to users and to the environment. They are therefore covered by one MSDS.

3. FLAMMABILITY & REACTIVITY

Flash Point
- (a) 43°C; (b) 43°C; (c) 43°C; (d) 41°C

Autoignition Temperature
- (a) 229°C; (b) 254°C; (c) 243°C; (d) 216°C

Flammable Limits
- (a) 1% - 13.3%; (b) 0.9% - 7.0%; (c) 2.3% - 12.1%; (d) 1.4% - 8.1%

Hazardous Combustion Products
- carbon monoxide, nitrogen oxides, smoke

Firefighting Precautions
- foam, dry chemical, water fog, water spray only to cool, product floats on water - water jet spreads flames; firefighters must wear SCBA

Sensitivity to Static Discharge
- sensitive

Sensitivity to Mechanical Impact
- not sensitive

Chemical Stability
- stable; will not polymerize

Reactive With
- strong oxidising agents

Dangerous Decomposition Products
- none apart from “Hazardous Combustion Products”

4. TOXICOLOGY

EFFECTS OF ACUTE EXPOSURE

Skin Contact
- drying, may irritate on long exposure

Skin Absorption
- slight, no toxic effects anticipated by this route

Eye Contact
- irritating; will not damage eyes

Inhalation
- at over 1000 ppm: irritating; may cause headache, dizziness, drowsiness, intoxication

Ingestion
- low toxicity; accidental inhalation of liquid or vomited material into lungs likely to cause inhalation pneumonia

(Mineral Spirits, cont’d)
EFFECTS OF CHRONIC EXPOSURE

General
prolonged exposure may cause skin cracking and dermatitis
prolonged exposure of male rats to 330 ppm of vapour has caused kidney damage; no known effect in humans has been reported

Sensitising
no

Carcinogenic
3139 contains ethylbenzene; 750ppm ethylbenzene for life is tumorigenic in rodents
no such effect has been observed in humans

Reproductive Effect
none known in humans

Synergistic With
not known

Estimated LD<sub>50</sub>, LC<sub>50</sub>
(see Table in (1) above)

5. PROTECTIVE EQUIPMENT

Hands
“Viton” or nitrile gloves recommended

Eyes
safety glasses with side shields

Respirator
not required, unless material is hot and vapour is emitted; then mechanical ventilation required, and a respirator with organic vapour cartridge may be needed (see TWAEV, (1) above)

Clothing
not required

6. ENVIRONMENT

Leak Precaution
dyke to control spillage and prevent environmental contamination; if fire potential exists, blanket with foam as a precaution

Handling Spill
ventilate contaminated area; recover free liquid with explosion-proof pumps; absorb residue on an inert sorbent (dry sand, earth) and store in closed containers for disposal

Waste Disposal
do not flush to sewer; may be incinerated in approved facility

7. STORAGE & HANDLING

Store and use in a cool dry environment, away from sources of ignition, heat and oxidising agents. Caution – cloth or paper soaked in these products may undergo spontaneous ignition. Never discard wiping cloths soaked in mineral spirits carelessly. Dry carefully before discarding. Use with adequate ventilation. Ground the container before handling to prevent static discharge, which may cause ignition of this product or other products in the workplace. Do not cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower should be available near the workplace.

8. FIRST AID

SKIN:
Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered.

EYES:
Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is any irritation.

INHALATION:
Remove from contaminated area promptly. CAUTION: Rescuer must not endanger himself! If breathing stops, administer artificial respiration and seek medical aid promptly.

INGESTION:
Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, keep victim’s head below hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The risk and danger of this is greater than the risk of poisoning through absorption of this product. The stomach should be emptied under medical supervision, after the installation of an airway to protect the lungs.

Emergency telephone numbers
- weekdays from 8:00 - 5:00 (705) 436-5580
   at all other times (800) 567-7455 (Philip Environmental)

Prepared for Comet Chemical Co. Ltd., by Nicholas Morgan, September 2002
The information herein is given in good faith but no warranty, expressed or implied is made,
PLEASE ENSURE THAT THIS MSDS IS GIVEN TO AND EXPLAINED TO THE PERSON USING THIS PRODUCT.