1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY

PRODUCT NAME: WHITE SPIRIT

CHEMICAL FAMILY: PETROLEUM SOLVENT

PRODUCT CODE: 1992

PRODUCT USES: A highly refined solvent suitable for general degreasing purposes, brush cleaning and paint thinning.

SUPPLIER: Bartoline Limited
Barmston close
Beverley
East Yorkshire
HU17 0LG

TELEPHONE 01482 678727
FAX 01482 872606
EXCHANGE 01482 678710

POISONS ADVICE CENTRE: NHS Direct: 0845 46 47 /Textphone 0845 606 46 47

2. COMPOSITION/INFORMATION ON INGREDIENTS

Naphtha (petroleum) hydrodesulphurised heavy. A complex combination of hydrocarbons obtained from a catalytic hydrodesulphurisation process.

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC No</th>
<th>CAS No</th>
<th>Content</th>
<th>Symbols</th>
<th>R-phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum) hydrodesulphurised heavy</td>
<td>265-185-4</td>
<td>64742-82-1</td>
<td>100%</td>
<td>Xn, N</td>
<td>R-10, 65, 66, 67, 51/53</td>
</tr>
</tbody>
</table>

Composition comments: Notes H and P (directive 67/548/EEC, annex I) apply
Total content of aromatics, % by weight 15 - 20

3. HAZARDS IDENTIFICATION

HEALTH EFFECTS: If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions. Repeated exposure may cause rashes or more serious skin conditions. Vapours inhaled in strong concentrations may have a narcotic effect on the central nervous system (headache, dizziness…).

ENVIRONMENTAL IMPACT: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

PHYSICO-CHEMICAL HAZARDS Flammable.
In use may form flammable/explosive vapour –air mixture. Vapours heavier than air may spread along the ground and may ignite at a distance.

Cont
4. FIRST AID MEASURES

INHALATION: Remove to fresh air. If unconscious, place in recovery position. Seek medical help.
-Symptoms: Irritation of the respiratory system; narcosis.

SKIN CONTACT: Wash area with plenty soap and water. Remove any heavily contaminated clothing. Seek advice if irritation persists.
-Symptoms: Skin irritation

EYE CONTACT: Flush out eyes with clean water, whilst lifting the eyelids, continue for 15 minutes or until the irritation subsides. Seek medical help if irritation persists.
-Symptoms: Burning feeling and temporary redness.

INGESTION: If swallowed, DO NOT induce vomiting. Wash out mouth and give water to drink Get immediate medical help.
-Symptoms: Nausea, vomiting, abdominal pains.

5. FIRE FIGHTING MEASURES

FIRE FIGHTING PROCEDURES
Use water spray to cool surfaces exposed to the fire, and to protect personnel. If possible shut off source of fuel to the fire.

Use foam, CO2, Dry Powder or water spray to extinguish the fire.

SPECIAL FIRE PRECAUTIONS
Avoid spraying water directly into storage containers due to danger of boilover.
Do not use water jet as this may spread the fire.

SPECIAL PRECAUTIONS
Fires in closed or confined spaces should be tackled by trained personnel who should wear self contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL:
Eliminate sources of ignition.
Prevent liquid from entering sewers or drains.
Keep public away from the area.
Shut of source if possible to do so without hazard.
Inform the local authority and fire service should the material enter drains, watercourse or has contaminated soil or vegetation.
Contain spillage with earth or sand.
Recover by pumping (use an explosive proof electrical pump or hand pump) If liquid is too viscous for pumping, scrape up with shovels or pails and place in suitable containers for recycling or disposal.
Consult an expert on disposal of recovered material and ensure conformity with local disposal regulations.

WATER SPILL:
Eliminate sources of ignition and request other shipping to stay clear.
Notify port or relevant authority and keep public away.
Shut off source if possible to do so without hazard. Confine if possible.
Remove from surface by skimming or with suitable absorbent.
Consult an expert on disposal of recovered material and ensure conformity with local disposal regulations.

See section 13 Disposal Considerations.
7. HANDLING AND STORAGE

HANDLING:
Avoid unnecessary skin contact (use of barrier cream can be beneficial). Where prolonged or repeated exposure is likely the use of Personal Protective Equipment may be appropriate (Face screen/goggles, impervious Nitrile gloves). See Section 8. Ensure area is well ventilated and take care to prevent build up of static electricity. Keep containers closed. Open slowly in order to control possible pressure release. Do not heat, cut or weld containers even when empty as explosive vapours may be present. If using the product in a confined space it is recommended that mechanical ventilation be employed to prevent vapour build up.

STORAGE:
The design, construction and use of bulk storage and handling facilities is covered by codes of practice HSG 176 The Storage of Flammable Liquids in Tanks and HSG 51 The Storage of Flammable Liquids in Containers gives sound advice.
In outline.
Store in a cool well-ventilated place out of direct sunlight and away from children. Keep in original container, which should be kept closed. Drums should be stored on their sides on racks preferably under cover, out of direct sunlight. Care should be taken to ensure outside areas are bunded to prevent accidental release to the environment. Smaller containers PET bottles should be stored under cover out of direct sunlight, in well ventilated conditions do not over stack pallets.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Control Measures:
The use of dilution ventilation is recommended whenever this product is used in side buildings. Maintain a good standard of ventilation at all other times. The use of Local Exhaust Ventilation is recommended to control emissions near the source especially when used in confined spaces such as laboratories and small workrooms.

Occupational Exposure Limits:
This product is a complex mixture, It is recommended that an Workplace Exposure Limit of 350mg/m3 Time Weighted Average (8hours) value for hydrocarbon solvents based on CEFIC-HSPA (Brussels) guideline values determined using the RCP (Reciprocal Calculation Procedure). Short –term exposure value (15 Minute) 600mg/m3.

Personal Protective Equipment:
• For open systems where prolonged contact is likely, wear safety glasses with side shields Approved to BS EN 166, long sleeves and chemical resistant gloves (Nitrile) approved to BS EN 374.
• Where the concentrations in air may exceed the limits given in this section, and engineering, work practice or other means of exposure reduction are not adequate, approved respirators may be necessary to prevent over exposure by inhalation. It is recommended to use half face filter mask to protect from overexposure by inhalation. Suitable filter material depends on the amount and type of chemical being handled, but filter material of type “A” or similar may be considered suitable for use.

9. PHYSICAL & CHEMICAL PROPERTIES

These are indicative values only:
Physical State: Liquid
Form/colour: Colourless
Odour: Distinctive petroleum type
Ph ( ) (Deg C): Not determined
Flashpoint (ISO 2719): 38 Deg C minimum
Autoignition Temperature: (ASTM E 659) 230 Deg C
Explosive Limits (In Air): 0.6 – 8.0 Vol. %
Vapour Pressure 5 hPA @ 20 Deg C
Density (15 Deg C): 774 – 790 Kg.m3 @ 15 degrees C
Solubility In Water Negligible
Viscosity 0.8mm2/s @ 20 Deg C
Benzene content <0.1% wt
Evaporation rate: 65 (DIN 53170) Reference EtEt=1
10. STABILITY AND REACTIVITY

Stability: Stable at normal usage temperatures
Conditions to avoid Instability: Heat (Flammable) sources of ignition
Materials & Conditions to avoid (Incompatibility): Oxidising Agents, strong acids/alkalis and halogens.
Plastic containers unless approved i.e. PET

Hazardous Decomposition Products:
Thermal decomposition may lead to the formation of a multiplicity of compounds some of which may be hazardous. With incomplete combustion smoke and hazardous fumes and gases, including carbon monoxide may be formed.

11. TOXICOLOGICAL INFORMATION

Acute:
Inhalation: Vapour concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anaesthetic and may have other central nervous system effects.

Skin Contact: Low order of toxicity, frequent or prolonged contact may irritate and cause dermatitis. LD50 (Rabbit) >2000mg/kg (CONCAWE)

Eye Contact: Slightly irritating, but does not injure eye tissue.

Ingestion: Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary edema. LD50, RAT: >5000mg/kg

12. ECOLOGICAL INFORMATION

Acute Toxicity:
LC50 – 96hr Fish <10mg/l hence classified as TOXIC (see section 15).

Environmental Mobility:
In water the product is insoluble and will spread over the surface possibly affecting oxygen transfer. Likely to evaporate readily.
In soil the product has only slight mobility and will partially evaporate.

Environmental Degradability:
Not Readily biodegradable

Bioaccumulation:
May bioaccumulate.

13. DISPOSAL CONSIDERATIONS

The following advice only applies to the product as supplied.

Combination with other materials may well indicate another route of disposal. If in doubt, contact local authorities.

Empty drums/containers should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor.

Dispose of product by incineration or by landfill at a suitable site approved by local authorities. This product is ashless and can be burned directly in appropriate equipment. Do not dispose of material into Drains, sewers, sinks or immediate environment. It is an offence to discharge this product into public drains, marine or inland waters.
In case of query contact specialist waste disposal contractor for advice.
14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Label for Conveyance</th>
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<tbody>
<tr>
<td>UN Number</td>
<td>1300</td>
</tr>
<tr>
<td>Shipping name</td>
<td>TURPENTINE SUBSTITUTE (White Spirit)</td>
</tr>
<tr>
<td>Class</td>
<td>3</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>IMDG Class</td>
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<tr>
<td>CAS No</td>
<td>64742-82-1</td>
</tr>
<tr>
<td>Marine Pollutant</td>
<td>Yes</td>
</tr>
<tr>
<td>ADR Class</td>
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<tr>
<td>ADR Classification code</td>
<td>F1</td>
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<tr>
<td>Ems</td>
<td>F-E, S-E</td>
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<tr>
<td>Hazard Identification Number</td>
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<tr>
<td>Limited Quantity size</td>
<td>5 litres (LQ7)</td>
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<tr>
<td>ICAO/IATA CLASS</td>
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</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>Label for Supply</th>
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</tr>
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<tbody>
<tr>
<td>Label Name</td>
<td>Contains Naphtha (petroleum) hydrodesulfurised heavy</td>
</tr>
<tr>
<td>Risk Phrase</td>
<td>R10 Flammable, R65 Harmful: may cause lung damage if swallowed, R66 Repeated exposure may cause skin dryness or cracking, R67 Vapours may cause drowsiness and dizziness, R51/53 Toxic: To aquatic organisms, may cause long-term adverse effects in the aquatic environment</td>
</tr>
<tr>
<td>Safety Phrase</td>
<td>S 2 Keep out of reach of children, S23 Do not breathe vapour, S 24 Avoid contact with skin, S 29 Do not empty into drains, S62 If swallowed do not induce vomiting: seek medical advice immediately and show this container or label, S56 Dispose of this material and its container to hazardous or special waste collection point</td>
</tr>
</tbody>
</table>

Users of this product are reminded of their duties under the current Control of Substances Hazardous to Health Regulations and a suitable and sufficient assessment of all the risk should be undertaken before using this product. The guidelines given in the HSE publication COSHH ESSENTIALS - Easy Steps To Control Chemicals gives sound advice for deciding safe working control measures.

Inventories

<table>
<thead>
<tr>
<th>Country</th>
<th>Registration number</th>
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<tbody>
<tr>
<td>Canada (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe (EINECS)</td>
<td>Yes Registration number 265-185-4</td>
</tr>
<tr>
<td>Japan (ENCS)</td>
<td>Yes Registration Number 9-1702</td>
</tr>
<tr>
<td>Korea (ECL)</td>
<td>Yes Registration Number KE-25620</td>
</tr>
</tbody>
</table>
The information contained in this data sheet is provided in accordance with the requirements with the standards defined by directives 91/155/CEE, 2001/58/CE, article 14 of the directive 1999/45/EC and the UK Chemicals (Hazard Information and Packaging for Supply) Regulations. The product should not be used for purposes other than those shown in Section 1. As the specific conditions of use are outside the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet is based on the present knowledge and the current UK legislation and EC Directives. It provides guidance on health, safety and environmental aspects of the product and should not be taken as a product specification.

**Explanation of risk phrases used in section 2**

R10 Flammable
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness and cracking
R67 Vapours may cause drowsiness and dizziness.

Department issuing this document: Health & Safety

Compilation Date: 19 February 07

Issue Number: 7

Changes from last issue: Updated sections 2, 3, 4, 8, 11, 12, 15, 16

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