

# GSB Chemical Premium Wash

GSB Chemical Co.

Chemwatch: 21-9783

Version No: 6.1.1.1

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 2

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Initial Date: Not Available

S.GHS.AUS.EN

## SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

### Product Identifier

|                               |   |
|-------------------------------|---|
| Product name                  | GSB Chemical Premium Wash   |
| Synonyms                      | Product Code: E092a   |
| Proper shipping name          | FLAMMABLE LIQUID, N.O.S. (contains naphtha petroleum, light aromatic solvent) |
| Other means of identification | Not Available   |

### Relevant identified uses of the substance or mixture and uses advised against

|                          |  |
|--------------------------|--|
| Relevant identified uses | Use according to manufacturer's directions.<br>Blanket wash. |
|--------------------------|--|

### Details of the supplier of the safety data sheet

|                         |  |
|-------------------------|--|
| Registered company name | GSB Chemical Co.                             |
| Address                 | 84 Camp Road Broadmeadows 3047 VIC Australia |
| Telephone               | +61 3 9457 1125 (8am-5pm, Monday - Friday)   |
| Fax                     | +61 3 9459 7978                              |
| Website                 | Not Available                                |
| Email                   | info@gsbchem.com.au                          |

### Emergency telephone number

|                                   |  |
|-----------------------------------|--|
| Association / Organisation        | Not Available                              |
| Emergency telephone numbers       | +61 3 9457 1125 (8am-5pm, Monday - Friday) |
| Other emergency telephone numbers | 13 11 26 (After hours)                     |

## SECTION 2 HAZARDS IDENTIFICATION

### Classification of the substance or mixture

**HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code.**

|                        |  |
|------------------------|--|
| Poisons Schedule       | S5   |
| GHS Classification [1] | Flammable Liquid Category 3, Skin Corrosion/Irritation Category 2, STOT - SE (Narcosis) Category 3, Aspiration Hazard Category 1, Acute Aquatic Hazard Category 2, Chronic Aquatic Hazard Category 2 |
| Legend:                | 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI  |

### Label elements

|                    |   |
|--------------------|---|
| GHS label elements |  |
| SIGNAL WORD        | <b>DANGER</b>   |

### Hazard statement(s)

|        |   |
|--------|---|
| H226   | Flammable liquid and vapour                           |
| H315   | Causes skin irritation                                |
| H336   | May cause drowsiness or dizziness                     |
| H304   | May be fatal if swallowed and enters airways          |
| H401   | Toxic to aquatic life                                 |
| H411   | Toxic to aquatic life with long lasting effects       |
| AUH066 | Repeated exposure may cause skin dryness and cracking |

Continued...

**Precautionary statement(s) Prevention**

|      |  |
|------|--|
| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking.         |
| P271 | Use only outdoors or in a well-ventilated area.                            |
| P240 | Ground/bond container and receiving equipment.                             |
| P241 | Use explosion-proof electrical/ventilating/lighting/.../equipment.         |
| P242 | Use only non-sparking tools.   |
| P243 | Take precautionary measures against static discharge.                      |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray.                          |
| P273 | Avoid release to the environment.  |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |

**Precautionary statement(s) Response**

|                |  |
|----------------|--|
| P301+P310      | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  |
| P331           | Do NOT induce vomiting.  |
| P362           | Take off contaminated clothing and wash before reuse.  |
| P370+P378      | In case of fire: Use alcohol resistant foam or normal protein foam for extinction.                         |
| P312           | Call a POISON CENTER or doctor/physician if you feel unwell.   |
| P391           | Collect spillage.  |
| P302+P352      | IF ON SKIN: Wash with plenty of soap and water.  |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P304+P340      | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.           |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.   |

**Precautionary statement(s) Storage**

|           |  |
|-----------|--|
| P403+P235 | Store in a well-ventilated place. Keep cool.                     |
| P405      | Store locked up.   |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |

**Precautionary statement(s) Disposal**

|      |   |
|------|---|
| P501 | Dispose of contents/container in accordance with local regulations. |
|------|---|

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No        | %[weight] | Name   |
|---------------|-----------|--|
| 64742-95-6.   | >60       | <u>naphtha petroleum, light aromatic solvent</u> |
| Not Available | <10       | Not Available                                    |
| Not Available | <10       | Not Available                                    |

**SECTION 4 FIRST AID MEASURES****Description of first aid measures**

|                     |  |
|---------------------|--|
| <b>Eye Contact</b>  | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>  |
| <b>Skin Contact</b> | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>  |
| <b>Inhalation</b>   | <ul style="list-style-type: none"> <li>▶ If fumes or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor.</li> </ul>                      |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>▶ <b>If swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> </ul> |

- ▶ Avoid giving milk or oils.
- ▶ Avoid giving alcohol.

### Indication of any immediate medical attention and special treatment needed

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- ▶ Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- ▶ Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

## SECTION 5 FIREFIGHTING MEASURES

### Extinguishing media

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

Do not use a water jet to fight fire.

### Special hazards arising from the substrate or mixture

- |                             |  |
|-----------------------------|--|
| <b>Fire Incompatibility</b> | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--|

### Advice for firefighters

|                              |   |
|------------------------------|---|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ Avoid spraying water onto liquid pools.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> </ul> |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Liquid and vapour are flammable.</li> <li>▶ Moderate fire hazard when exposed to heat or flame.</li> <li>▶ Vapour forms an explosive mixture with air.</li> <li>▶ Moderate explosion hazard when exposed to heat or flame.</li> <li>▶ Vapour may travel a considerable distance to source of ignition.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include; carbon monoxide (CO) carbon dioxide (CO<sub>2</sub>) other pyrolysis products typical of burning organic material May emit clouds of acid smoke</p>  |

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

|                     |  |
|---------------------|--|
| <b>Minor Spills</b> | <ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb small quantities with vermiculite or other absorbent material.</li> <li>▶ Wipe up.</li> <li>▶ Collect residues in a flammable waste container.</li> </ul>  |
| <b>Major Spills</b> | <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ Consider evacuation (or protect in place).</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Water spray or fog may be used to disperse /absorb vapour.</li> <li>▶ Contain spill with sand, earth or vermiculite.</li> <li>▶ Use only spark-free shovels and explosion proof equipment.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Absorb remaining product with sand, earth or vermiculite.</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> </ul> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

|                          |   |
|--------------------------|---|
| <b>Safe handling</b>     | <ul style="list-style-type: none"> <li>▶ Containers, even those that have been emptied, may contain explosive vapours.</li> <li>▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of overexposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ Avoid smoking, naked lights or ignition sources.</li> <li>▶ Avoid generation of static electricity.</li> <li>▶ <b>DO NOT use plastic buckets.</b></li> <li>▶ Earth all lines and equipment.</li> <li>▶ Use spark-free tools when handling.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.</li> </ul>   |
| <b>Other information</b> | <ul style="list-style-type: none"> <li>▶ Store in approved flammable liquid storage area.</li> <li>▶ No smoking, naked lights/ignition sources.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ Store away from incompatible materials in a cool, dry, well-ventilated area.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> <li>▶ Storage areas should be clearly identified, well illuminated, clear of obstruction and accessible only to trained and authorised personnel - adequate security must be provided so that unauthorised personnel do not have access.</li> <li>▶ Store in grounded, properly designed and approved vessels and away from incompatible materials</li> <li>▶ Store according to applicable regulations for flammable materials for storage tanks, containers, piping, buildings, rooms, cabinets, allowable quantities and minimum storage distances.</li> <li>▶ Use non-sparking ventilation systems, approved explosion proof equipment and intrinsically safe electrical systems.</li> <li>▶ Have appropriate extinguishing capability in storage area (e.g. portable fire extinguishers - dry chemical, foam or carbon dioxide) and flammable gas detectors.</li> <li>▶ Keep adsorbents for leaks and spills readily available</li> <li>▶ For bulk storages, consider use of floating roof or nitrogen blanketed vessels; where venting to atmosphere is possible, equip storage tank vents with flame arrestors; inspect tank vents during winter conditions for vapour/ ice build-up; storage tanks should be above ground and diked to hold entire contents.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul> |

### Conditions for safe storage, including any incompatibilities

|                                |  |
|--------------------------------|--|
| <b>Suitable container</b>      | <ul style="list-style-type: none"> <li>▶ Packing as supplied by manufacturer.</li> <li>▶ Plastic containers may only be used if approved for flammable liquid.</li> <li>▶ Check that containers are clearly labelled and free from leaks.</li> <li>▶ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.</li> <li>▶ For materials with a viscosity of at least 2680 cSt. (23 deg. C)</li> <li>▶ For manufactured product having a viscosity of at least 250 cSt. (23 deg. C)</li> <li>▶ Manufactured product that requires stirring before use and having a viscosity of at least 20 cSt (25 deg. C): (i) Removable head packaging; (ii) Cans with friction closures and (iii) low pressure tubes and cartridges may be used.</li> <li>▶ Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages</li> <li>▶ In addition, where inner packagings are glass and contain liquids of packing group I there must be sufficient inert absorbent to absorb any spillage, unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic.</li> </ul> |
| <b>Storage incompatibility</b> | <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul>   |

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

Not Available


#### EMERGENCY LIMITS

| Ingredient                                | Material name  | TEEL-1        | TEEL-2 | TEEL-3  |
|---|--|---------------|--------|---------|
| naphtha petroleum, light aromatic solvent | Aromatic hydrocarbon solvents; (High flash naphtha distillates; Solvent naphtha (petroleum), light aromatic) | 3.1 ppm       | 34 ppm | 410 ppm |
| Ingredient                                | Original IDLH  | Revised IDLH  |        |         |
| naphtha petroleum, light aromatic solvent | Not Available  | Not Available |        |         |

### Exposure controls

|                                |   |
|--------------------------------|---|
| <b>Appropriate engineering</b> | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly |
|--------------------------------|---|

Continued...

|   | <p>effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.</p> <p>Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.</p> <table border="1" data-bbox="359 477 1489 745"> <thead> <tr> <th>Type of Contaminant:</th> <th>Air Speed:</th> </tr> </thead> <tbody> <tr> <td>solvent, vapours, degreasing etc., evaporating from tank (in still air).</td> <td>0.25-0.5 m/s<br/>(50-100 f/min.)</td> </tr> <tr> <td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)</td> <td>0.5-1 m/s<br/>(100-200 f/min.)</td> </tr> <tr> <td>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td> <td>1-2.5 m/s<br/>(200-500 f/min.)</td> </tr> </tbody> </table> <p>Within each range the appropriate value depends on:</p> <table border="1" data-bbox="359 801 1489 969"> <thead> <tr> <th>Lower end of the range</th> <th>Upper end of the range</th> </tr> </thead> <tbody> <tr> <td>1: Room air currents minimal or favourable to capture</td> <td>1: Disturbing room air currents</td> </tr> <tr> <td>2: Contaminants of low toxicity or of nuisance value only.</td> <td>2: Contaminants of high toxicity</td> </tr> <tr> <td>3: Intermittent, low production.</td> <td>3: High production, heavy use</td> </tr> <tr> <td>4: Large hood or large air mass in motion</td> <td>4: Small hood-local control only</td> </tr> </tbody> </table> <p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p> | Type of Contaminant: | Air Speed: | solvent, vapours, degreasing etc., evaporating from tank (in still air). | 0.25-0.5 m/s<br>(50-100 f/min.) | aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s<br>(100-200 f/min.) | direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) | 1-2.5 m/s<br>(200-500 f/min.) | Lower end of the range | Upper end of the range | 1: Room air currents minimal or favourable to capture | 1: Disturbing room air currents | 2: Contaminants of low toxicity or of nuisance value only. | 2: Contaminants of high toxicity | 3: Intermittent, low production. | 3: High production, heavy use | 4: Large hood or large air mass in motion | 4: Small hood-local control only |
|---|--|----------------------|------------|--|---------------------------------|---|-------------------------------|--|-------------------------------|------------------------|------------------------|---|---------------------------------|--|----------------------------------|----------------------------------|-------------------------------|---|----------------------------------|
| Type of Contaminant:  | Air Speed:   |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| solvent, vapours, degreasing etc., evaporating from tank (in still air).  | 0.25-0.5 m/s<br>(50-100 f/min.)  |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s<br>(100-200 f/min.)  |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)  | 1-2.5 m/s<br>(200-500 f/min.)  |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| Lower end of the range  | Upper end of the range   |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| 1: Room air currents minimal or favourable to capture   | 1: Disturbing room air currents  |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| 2: Contaminants of low toxicity or of nuisance value only.  | 2: Contaminants of high toxicity   |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| 3: Intermittent, low production.  | 3: High production, heavy use  |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| 4: Large hood or large air mass in motion   | 4: Small hood-local control only   |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <p><b>Personal protection</b></p>   |   |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <p><b>Eye and face protection</b></p>   | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>  |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <p><b>Skin protection</b></p>   | <p>See Hand protection below</p>   |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <p><b>Hands/feet protection</b></p>   | <ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>▶ frequency and duration of contact,</li> <li>▶ chemical resistance of glove material,</li> <li>▶ glove thickness and</li> <li>▶ dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>▶ When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>▶ When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>▶ Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>▶ Contaminated gloves should be replaced.</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p>  |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <p><b>Body protection</b></p>   | <p>See Other protection below</p>  |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |
| <p><b>Other protection</b></p>  | <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ PVC Apron.</li> <li>▶ PVC protective suit may be required if exposure severe.</li> <li>▶ Eyewash unit.</li> <li>▶ Ensure there is ready access to a safety shower.</li> </ul> <ul style="list-style-type: none"> <li>• Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.</li> <li>• For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).</li> <li>• Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound</li> </ul>  |                      |            |  |                                 |   |                               |  |                               |                        |                        |   |                                 |  |                                  |                                  |                               |   |                                  |

|                        |   |
|------------------------|---|
|                        | chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive shoes should be stored in lockers close to the room in which they are worn. Personnel who have been issued conductive footwear should not wear them from their place of work to their homes and return. |
| <b>Thermal hazards</b> | Not Available   |

**Respiratory protection**

Not Available

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

|   |   |  |                |
|---|---|--|----------------|
| <b>Appearance</b>                                   | Blue liquid with a characteristic odour; emulsifies with water. |  |                |
| <b>Physical state</b>                               | #00Liquid   | <b>Relative density (Water = 1)</b>            | 0.8            |
| <b>Odour</b>  | Not Available   | <b>Partition coefficient n-octanol / water</b> | Not Available  |
| <b>Odour threshold</b>                              | Not Available   | <b>Auto-ignition temperature (°C)</b>          | Not Available  |
| <b>pH (as supplied)</b>                             | Not Applicable  | <b>Decomposition temperature</b>               | Not Available  |
| <b>Melting point / freezing point (°C)</b>          | Not Available   | <b>Viscosity (cSt)</b>                         | Not Available  |
| <b>Initial boiling point and boiling range (°C)</b> | 150-196   | <b>Molecular weight (g/mol)</b>                | Not Applicable |
| <b>Flash point (°C)</b>                             | 38  | <b>Taste</b>                                   | Not Available  |
| <b>Evaporation rate</b>                             | Not Available   | <b>Explosive properties</b>                    | Not Available  |
| <b>Flammability</b>                                 | Flammable.  | <b>Oxidising properties</b>                    | Not Available  |
| <b>Upper Explosive Limit (%)</b>                    | Not Available   | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Available  |
| <b>Lower Explosive Limit (%)</b>                    | Not Available   | <b>Volatile Component (%vol)</b>               | >95            |
| <b>Vapour pressure (kPa)</b>                        | Not Available   | <b>Gas group</b>                               | Not Available  |
| <b>Solubility in water (g/L)</b>                    | Partly Miscible   | <b>pH as a solution (1%)</b>                   | Not Available  |
| <b>Vapour density (Air = 1)</b>                     | >1  | <b>VOC g/L</b>                                 | Not Available  |

**SECTION 10 STABILITY AND REACTIVITY**

|   |  |
|---|--|
| <b>Reactivity</b>                         | See section 7  |
| <b>Chemical stability</b>                 | <ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| <b>Possibility of hazardous reactions</b> | See section 7  |
| <b>Conditions to avoid</b>                | See section 7  |
| <b>Incompatible materials</b>             | See section 7  |
| <b>Hazardous decomposition products</b>   | See section 5  |

**SECTION 11 TOXICOLOGICAL INFORMATION****Information on toxicological effects**

|                  |  |
|------------------|--|
| <b>Inhaled</b>   | <p>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.</p> <p>There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>Inhalation hazard is increased at higher temperatures.</p> <p>Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor.</p> <p>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.</p> <p>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p> <p>Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> |
| <b>Ingestion</b> | <p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous.</p> <p>Symptoms include a burning mouth and throat; larger amounts can cause nausea and vomiting, narcosis, weakness, dizziness, slow and shallow breathing, abdominal swelling, unconsciousness and convulsions.</p> <p>Considered an unlikely route of entry in commercial/industrial environments. The liquid may produce gastrointestinal discomfort and may be harmful if swallowed.</p>   |

## GSB Chemical Premium Wash

|                     |   |
|---------------------|---|
| <b>Skin Contact</b> | This material can cause inflammation of the skin on contact in some persons.<br>The material may accentuate any pre-existing dermatitis condition<br>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.<br>Open cuts, abraded or irritated skin should not be exposed to this material<br>Aromatic hydrocarbons may produce sensitivity and redness of the skin. They are not likely to be absorbed into the body through the skin but branched species are more likely to.                |
| <b>Eye</b>          | There is some evidence to suggest that this material can cause eye irritation and damage in some persons.<br>Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged. Aromatic species can cause irritation and excessive tear secretion.  |
| <b>Chronic</b>      | Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.<br>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.<br>Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. |

|  |   |                   |
|--|---|-------------------|
| <b>GSB Chemical Premium Wash</b>                 | <b>TOXICITY</b>   | <b>IRRITATION</b> |
|  | Not Available   | Not Available     |
| <b>naphtha petroleum, light aromatic solvent</b> | <b>TOXICITY</b>   | <b>IRRITATION</b> |
|  | Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>  | Nil reported      |
|  | Inhalation (rat) LC50: >3670 ppm/8 h <sup>[2]</sup>   |                   |
|  | Oral (rat) LD50: >4500 mg/kg <sup>[1]</sup>   |                   |
| <b>GSB Chemical Premium Wash</b>                 | <b>TOXICITY</b>   | <b>IRRITATION</b> |
|  | Not Available   | Not Available     |
| <b>GSB Chemical Premium Wash</b>                 | <b>TOXICITY</b>   | <b>IRRITATION</b> |
|  | Not Available   | Not Available     |
| <b>Legend:</b>                                   | 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances |                   |

|  |   |                                 |   |
|--|---|---------------------------------|---|
| <b>Acute Toxicity</b>                    | ☒ | <b>Carcinogenicity</b>          | ☒ |
| <b>Skin Irritation/Corrosion</b>         | ✔ | <b>Reproductivity</b>           | ☒ |
| <b>Serious Eye Damage/Irritation</b>     | ☒ | <b>STOT - Single Exposure</b>   | ✔ |
| <b>Respiratory or Skin sensitisation</b> | ☒ | <b>STOT - Repeated Exposure</b> | ☒ |
| <b>Mutagenicity</b>                      | ☒ | <b>Aspiration Hazard</b>        | ✔ |

**Legend:** ✘ – Data available but does not fill the criteria for classification  
✔ – Data required to make classification available  
☒ – Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

| Ingredient                                | Endpoint | Test Duration | Species                       | Value     | Source |
|---|----------|---------------|-------------------------------|-----------|--------|
| naphtha petroleum, light aromatic solvent | EC50     | 48            | Crustacea                     | 6.14mg/L  | 1      |
| naphtha petroleum, light aromatic solvent | EC50     | 72            | Algae or other aquatic plants | 3.290mg/L | 1      |
| naphtha petroleum, light aromatic solvent | EC10     | 72            | Algae or other aquatic plants | 1.130mg/L | 1      |

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

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

For Hydrocarbons: log Kow 1. BCF-10.

For Aromatics: log Kow 2-3.

BCF 20-200. For C5 and greater alkanes: log Kow 3-4.5. BCF 100-1,500.

For Alkanes, Benzene, Toluene, Ethylbenzene, Xylene (BTEX):

Environmental Fate: Microbes found in many natural settings (e.g., soils, groundwater, ponds) have been shown to be capable of degrading organic compounds. Some hydrocarbons will become associated with marine sediments likely to be spread over a fairly wide area of sea floor. Under aerobic conditions, hydrocarbons degrade to water and carbon dioxide, while under anaerobic processes, they produce water, methane and carbon dioxide. Anaerobic degradation is slower than aerobic. Biodegradation can eliminate the contaminants without dispersing them throughout the environment. The rate of hydrocarbon degradation depends on the chemical composition of the product released to the environment as well as site-specific environmental factors. Hydrocarbons with condensed ring structures, such as PAHs (polycyclic aromatic hydrocarbons) with four or more rings, have been shown to be relatively resistant to biodegradation. PAHs with only 2 or 3 rings (e.g., naphthalene, anthracene) are more easily biodegraded. In almost all cases, the presence of oxygen is essential for effective biodegradation. Straight chain hydrocarbons and aromatics degrade more readily than highly branched aliphatic compounds. The n-alkanes, n-alkyl aromatics, and the aromatics in the C10-C22 range are the most readily biodegradable; n-alkanes, n-alkyl aromatics, and aromatics in the C5-C9 range are biodegradable at low concentrations by some microorganisms, but are generally preferentially removed by volatilization and thus are unavailable in most environments; n-alkanes in the C1-C4 ranges are biodegradable only by a narrow range of specialized hydrocarbon degraders; n-alkanes, n-alkyl aromatics, and aromatics above C22 are generally not available to degrading microorganisms. The ideal pH range to promote biodegradation is close to neutral (6-8). For most species, the optimal pH is slightly alkaline, that is, greater than 7. Generally, as the temperature increases, biological activity tends to increase up to a temperature where enzyme denaturation occurs.

Atmospheric Fate: Alkanes, isoalkanes, and cycloalkanes have half-lives on the order of 1-10 days, whereas alkenes, cycloalkenes, and substituted benzenes have half-lives of 1 day or less.

Photochemical oxidation products include aldehydes, hydroxy compounds, nitro compounds, and peroxyacyl nitrates. Alkenes, certain substituted aromatics, and naphthalene are potentially susceptible to direct photolysis.

Continued...

Aquatic Fate: Volatilization half-life predicted as 7 days (ponds), 1.5 days (rivers), 6 days (lakes). Volatilization rate of naphthalene and its substituted derivatives estimated to be slower. The lower molecular weight hydrocarbons are expected to form a "slick" on the surface of waters after release in calm seas which is expected to evaporate and enter the atmosphere where it will be degraded through reaction with hydroxy radicals. Ecotoxicity: Effects on freshwater/saltwater organisms: Hydrocarbons are hydrophobic. Such substances produce toxicity in aquatic organisms by a mechanism referred to as "non-polar narcosis" or "baseline" toxicity. Toxic effects are often observed in species such as blue mussel, water fleas, freshwater green algae, marine copepods and amphipods.

Drinking Water Standards: hydrocarbon total: 10 ug/l (UK max.).

**DO NOT discharge into sewer or waterways.**

#### Persistence and degradability

| Ingredient | Persistence: Water/Soil               | Persistence: Air                      |
|------------|---------------------------------------|---------------------------------------|
|            | No Data available for all ingredients | No Data available for all ingredients |

#### Bioaccumulative potential

| Ingredient | Bioaccumulation                       |
|------------|---------------------------------------|
|            | No Data available for all ingredients |

#### Mobility in soil

| Ingredient | Mobility                              |
|------------|---------------------------------------|
|            | No Data available for all ingredients |



### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

|                                     |  |
|-------------------------------------|--|
| <b>Product / Packaging disposal</b> | <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible.</li> <li>▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</li> <li>▶ Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material).</li> <li>▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.</li> </ul> |
|-------------------------------------|--|

### SECTION 14 TRANSPORT INFORMATION

#### Labels Required

|                  |   |
|------------------|---|
|                  |  |
| Marine Pollutant |  |
| HAZCHEM          | •3Y   |

#### Land transport (ADG)

|                              |   |
|------------------------------|---|
| UN number                    | 1993  |
| Packing group                | III   |
| UN proper shipping name      | FLAMMABLE LIQUID, N.O.S. (contains naphtha petroleum, light aromatic solvent) |
| Environmental hazard         | No relevant data  |
| Transport hazard class(es)   | Class : 3<br>Subrisk : Not Applicable   |
| Special precautions for user | Special provisions : 223 274<br>Limited quantity : 5 L                        |



**Air transport (ICAO-IATA / DGR)**

|                                     |   |                |
|-------------------------------------|---|----------------|
| <b>UN number</b>                    | 1993  |                |
| <b>Packing group</b>                | III   |                |
| <b>UN proper shipping name</b>      | Flammable liquid, n.o.s. * (contains naphtha petroleum, light aromatic solvent) |                |
| <b>Environmental hazard</b>         | No relevant data  |                |
| <b>Transport hazard class(es)</b>   | ICAO/IATA Class   | 3              |
|                                     | ICAO / IATA Subrisk   | Not Applicable |
|                                     | ERG Code  | 3L             |
| <b>Special precautions for user</b> | Special provisions  | A3             |
|                                     | Cargo Only Packing Instructions   | 366            |
|                                     | Cargo Only Maximum Qty / Pack   | 220 L          |
|                                     | Passenger and Cargo Packing Instructions  | 355            |
|                                     | Passenger and Cargo Maximum Qty / Pack  | 60 L           |
|                                     | Passenger and Cargo Limited Quantity Packing Instructions                       | Y344           |
|                                     | Passenger and Cargo Limited Maximum Qty / Pack                                  | 10 L           |

**Sea transport (IMDG-Code / GGVSee)**

|                                     |   |                |
|-------------------------------------|---|----------------|
| <b>UN number</b>                    | 1993  |                |
| <b>Packing group</b>                | III   |                |
| <b>UN proper shipping name</b>      | FLAMMABLE LIQUID, N.O.S. (contains naphtha petroleum, light aromatic solvent) |                |
| <b>Environmental hazard</b>         | Marine Pollutant  |                |
| <b>Transport hazard class(es)</b>   | IMDG Class  | 3              |
|                                     | IMDG Subrisk  | Not Applicable |
| <b>Special precautions for user</b> | EMS Number  | F-E , S-E      |
|                                     | Special provisions  | 223 274 955    |
|                                     | Limited Quantities  | 5 L            |

**Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code**

| Source  | Ingredient                                | Pollution Category |
|---|---|--------------------|
| IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk | naphtha petroleum, light aromatic solvent | Y                  |

**SECTION 15 REGULATORY INFORMATION****Safety, health and environmental regulations / legislation specific for the substance or mixture****NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT(64742-95-6.) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

- Not Applicable
- Not Applicable

| National Inventory            | Status   |
|-------------------------------|--|
| Australia - AICS              | Y  |
| Canada - DSL                  | Y  |
| Canada - NDSL                 | N (naphtha petroleum, light aromatic solvent)  |
| China - IECSC                 | Y  |
| Europe - EINEC / ELINCS / NLP | Y  |
| Japan - ENCS                  | Y  |
| Korea - KECI                  | Y  |
| New Zealand - NZIoC           | Y  |
| Philippines - PICCS           | Y  |
| USA - TSCA                    | Y  |
| <b>Legend:</b>                | Y = All ingredients are on the inventory<br>N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

**SECTION 16 OTHER INFORMATION****Other information****Ingredients with multiple cas numbers**

Continued...

| Name                                      | CAS No                   |
|---|--------------------------|
| naphtha petroleum, light aromatic solvent | 25550-14-5., 64742-95-6. |

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

[www.chemwatch.net](http://www.chemwatch.net)

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### Definitions and abbreviations

PC – TWA: Permissible Concentration-Time Weighted Average  
PC – STEL: Permissible Concentration-Short Term Exposure Limit  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit,  
IDLH: Immediately Dangerous to Life or Health Concentrations  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index