

Hurst 133 Excel Roller & Blanket Wash

Hazard Alert Code: MODERATE

Chemwatch Material Safety Data Sheet
Issue Date: 13-Jan-2012
A317LP

CHEMWATCH 4927-75
Version No:2.0
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

Hurst 133 Excel Roller & Blanket Wash

SYNONYMS

"mineral turpentine wash up", "solvent thinner", reducer, "roller wash", "blanket wash", "printing machine cleaner"

PROPER SHIPPING NAME

TURPENTINE SUBSTITUTE

PRODUCT USE

Wash up solution for printing machines.

■ The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.

SUPPLIER

Company: Hurst Australia Pty Ltd

Address:

10 Bellona Avenue

Regents Park

NSW, 2143

Australia

Telephone: +61 2 9644 6888

Emergency Tel: +61 2 9644 6888

Fax: +61 2 9644 6534

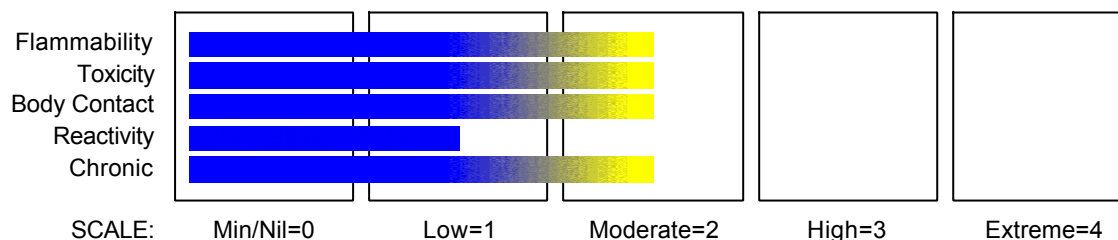
Email: info@hurst.com.au

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

CHEMWATCH HAZARD RATINGS



continued...

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Section 2 - HAZARDS IDENTIFICATION



RISK

- Flammable.
- Irritating to skin.
- HARMFUL- May cause lung damage if swallowed.
- Vapours may cause drowsiness and dizziness.
- Inhalation, skin contact and/or ingestion may produce health damage*.
- Cumulative effects may result following exposure*.
- May produce discomfort of the eyes and respiratory tract*.
- Repeated exposure potentially causes skin dryness and cracking*.

* (limited evidence).

SAFETY

- Do not breathe gas/fumes/vapour/spray.
- Avoid contact with skin.
- Avoid contact with eyes.
- Wear suitable protective clothing.
- Wear suitable gloves.
- Wear eye/face protection.
- Use only in well ventilated areas.
- Keep container in a well ventilated place.
- To clean the floor and all objects contaminated by this material, use water and detergent.
- Keep container tightly closed.
- Keep away from food, drink and animal feeding stuffs.
- In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
- If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).
- This material and its container must be disposed of as hazardous waste.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME | CAS RN | % |
|---------------------------------|------------|------|
| aliphatic petroleum hydrocarbon | | 1-30 |
| aromatic hydrocarbons | 63231-51-6 | 1-30 |

Section 4 - FIRST AID MEASURES

SWALLOWED

- For advice, contact a Poisons Information Centre or a doctor.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.

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Section 4 - FIRST AID MEASURES

- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE

- If this product comes in contact with the eyes:
 - Immediately hold eyelids apart and flush the eye continuously with running water.
 - 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.
 - Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
 - Transport to hospital or doctor without delay.
 - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

- If skin contact occurs:
 - Immediately remove all contaminated clothing, including footwear.
 - Flush skin and hair with running water (and soap if available).
 - Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- 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.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

- 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 (pO₂ 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].

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Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Foam.
 - Dry chemical powder.
- Bromochlorodifluoromethane (BCF) (where regulations permit).
Carbon dioxide.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 500 metres in all directions.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are flammable.
 - Moderate fire hazard when exposed to heat or flame.
 - Vapour forms an explosive mixture with air.
 - Moderate explosion hazard when exposed to heat or flame.
 - Vapour may travel a considerable distance to source of ignition.
 - Heating may cause expansion or decomposition leading to violent rupture of containers.
 - On combustion, may emit toxic fumes of carbon monoxide (CO).
- Other combustion products include: carbon dioxide (CO₂).

FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM

3Y

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Wipe up.
- Collect residues in a flammable waste container.

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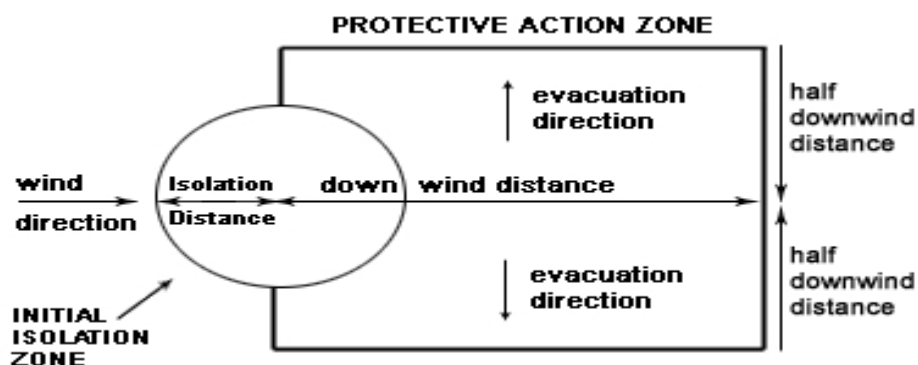
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Section 6 - ACCIDENTAL RELEASE MEASURES

MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Contain spill with sand, earth or vermiculite.
- Use only spark-free shovels and explosion proof equipment.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

PROTECTIVE ACTIONS FOR SPILL



From IERG (Canada/Australia)

| | |
|------------------------------|------------|
| Isolation Distance | 25 metres |
| Downwind Protection Distance | 300 metres |
| IERG Number | 14 |

FOOTNOTES

1 PROTECTIVE ACTION ZONE is defined as the area in which people are at risk of harmful exposure. This zone assumes that random changes in wind direction confines the vapour plume to an area within 30 degrees on either side of the predominant wind direction, resulting in a crosswind protective action distance equal to the downwind protective action distance.

2 PROTECTIVE ACTIONS should be initiated to the extent possible, beginning with those closest to the spill and working away from the site in the downwind direction. Within the protective action zone a level of vapour concentration may exist resulting in nearly all unprotected persons becoming incapacitated and unable to take protective action and/or incurring serious or irreversible health effects.

3 INITIAL ISOLATION ZONE is determined as an area, including upwind of the incident, within which a high probability of localised wind reversal may expose nearly all persons without appropriate protection to life-threatening concentrations of the material.

4 SMALL SPILLS involve a leaking package of 200 litres (55 US gallons) or less, such as a drum (jerrican or box with inner containers). Larger packages leaking less than 200 litres and compressed gas leaking from a small cylinder are also considered "small spills".

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Section 6 - ACCIDENTAL RELEASE MEASURES

LARGE SPILLS involve many small leaking packages or a leaking package of greater than 200 litres, such as a cargo tank, portable tank or a "one-tonne" compressed gas cylinder.

5 Guide 128 is taken from the US DOT emergency response guide book.

6 IERG information is derived from CANUTEC - Transport Canada.

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid generating and breathing mist.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of overexposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid generation of static electricity.
- DO NOT use plastic buckets.
- Earth all lines and equipment.
- Use spark-free tools when handling.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

SUITABLE CONTAINER

- Metal can or drum
 - Packaging as recommended by manufacturer.
 - Check all containers are clearly labelled and free from leaks.
- Packs of 5 litres or less require a child-resistant closure.

STORAGE INCOMPATIBILITY

- Avoid storage with oxidisers.

STORAGE REQUIREMENTS

- Store in original containers in approved flammable liquid storage area.
- Store away from incompatible materials in a cool, dry, well-ventilated area.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- 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.
- Store according to applicable regulations for flammable materials for storage tanks, containers, piping, buildings, rooms, cabinets, allowable quantities and minimum storage distances.

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Section 7 - HANDLING AND STORAGE

- Use non-sparking ventilation systems, approved explosion proof equipment and intrinsically safe electrical systems.
- Have appropriate extinguishing capability in storage area (e.g. portable fire extinguishers - dry chemical, foam or carbon dioxide) and flammable gas detectors.
- Keep adsorbents for leaks and spills readily available.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

In addition, for tank storages (where appropriate):

- Store in grounded, properly designed and approved vessels and away from incompatible materials.
- 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.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+ X + X X +

+: May be stored together

O: May be stored together with specific preventions

X: Must not be stored together

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

| Source | Material | TWA ppm | TWA mg/m ³ | STEL ppm | STEL mg/m ³ | Peak ppm | Peak mg/m ³ | TWA F/CC | Notes |
|------------------------------|---|---------|-----------------------|----------|------------------------|----------|------------------------|----------|-------|
| Australia Exposure Standards | aromatic hydrocarbons (Xylene (o-, m-, p- isomers)) | 80 | 350 | 150 | 655 | | | | |

EMERGENCY EXPOSURE LIMITS

| Material | Revised IDLH Value (mg/m ³) | Revised IDLH Value (ppm) |
|-----------------------|---|--------------------------|
| aromatic hydrocarbons | 0 | 900 |

ODOUR SAFETY FACTOR (OSF)

OSF=4 (aromatic hydrocarbons)

■ Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Classification into classes follows:

| Class | OSF | Description |
|-------|---------|---|
| A | 550 | Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being reached, even when distracted by working activities |
| B | 26- 550 | As " A" for 50- 90% of persons being distracted |
| C | 1- 26 | As " A" for less than 50% of persons being distracted |
| D | 0.18- 1 | 10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached |
| E | <0.18 | As " D" for less than 10% of persons aware of being tested |

MATERIAL DATA

HURST 133 EXCEL ROLLER & BLANKET WASH:

- None assigned. Refer to individual constituents.

aliphatic petroleum hydrocarbon

REL TWA: 100 ppm

[Hurst]

AROMATIC HYDROCARBONS:

- For toluene:

Odour Threshold Value: 0.16-6.7 (detection), 1.9-69 (recognition)

NOTE: Detector tubes measuring in excess of 5 ppm, are available.

High concentrations of toluene in the air produce depression of the central nervous system (CNS) in humans. Intentional toluene exposure (glue-sniffing) at maternally-intoxicating concentration has also produced birth defects. Foetotoxicity appears at levels associated with CNS narcosis and probably occurs only in those with chronic toluene-induced kidney failure. Exposure at or below the recommended TLV-TWA is thought to prevent transient headache and irritation, to provide a measure of safety for possible disturbances to human reproduction, the prevention of reductions in cognitive responses reported amongst humans inhaling greater than 40 ppm, and the significant risks of hepatotoxic, behavioural and nervous system effects (including impaired reaction time and incoordination). Although toluene/ethanol interactions are well recognised, the degree of protection afforded by the TLV-TWA among drinkers is not known.

Odour Safety Factor(OSF)

OSF=17 (TOLUENE).

for xylenes:

IDLH Level: 900 ppm

Odour Threshold Value: 20 ppm (detection), 40 ppm (recognition)

NOTE: Detector tubes for o-xylene, measuring in excess of 10 ppm, are available commercially. (m-xylene and p-xylene give almost the same response).

Xylene vapour is an irritant to the eyes, mucous membranes and skin and causes narcosis at high concentrations. Exposure to doses sufficiently high to produce intoxication and unconsciousness also produces transient liver and kidney toxicity. Neurologic impairment is NOT evident amongst volunteers inhaling up to 400 ppm though complaints of ocular and upper respiratory tract irritation occur at 200 ppm for 3 to 5 minutes.

Exposure to xylene at or below the recommended TLV-TWA and STEL is thought to minimise the risk of irritant effects and to produce neither significant narcosis or chronic injury. An earlier skin notation was deleted because percutaneous absorption is gradual and protracted and does not substantially contribute to the dose received by inhalation.

Odour Safety Factor(OSF)

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

OSF=4 (XYLENE).
 for petroleum distillates:
 CEL TWA: 500 ppm, 2000 mg/m3 (compare OSHA TWA).

PERSONAL PROTECTION



EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens 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].

HANDS/FEET

- Barrier cream with polyethylene gloves or Wear chemical protective gloves, eg. PVC
- Wear safety footwear.
- DO NOT use this product to clean the skin.

OTHER

- Overalls.
- Ensure that there is ready access to eye wash unit.
- Ensure there is ready access to an emergency shower.

RESPIRATOR

- Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)
- Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

| Required minimum protection factor | Maximum gas/vapour concentration present in air p.p.m. (by volume) | Half- face Respirator | Full- Face Respirator |
|------------------------------------|--|-----------------------|-----------------------|
| up to 10 | 1000 | A- AUS / Class1 | - |
| up to 50 | 1000 | - | A- AUS / Class 1 |
| up to 50 | 5000 | Airline * | - |
| up to 100 | 5000 | - | A- 2 |

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

| | | | |
|-----------|-------|---|-----------|
| up to 100 | 10000 | - | A- 3 |
| 100+ | | | Airline** |

* - Continuous Flow ** - Continuous-flow or positive pressure demand

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO₂), G = Agricultural chemicals, K = Ammonia(NH₃), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC).

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

- Use in a well-ventilated area or Local exhaust ventilation may be required for safe working, i.e. to keep exposures below required standards, otherwise PPE is required.
- Spraying to be carried out in conditions conforming to local state regulations Unprotected personnel must vacate the spraying area.
- If inhalation risk of overexposure exists, wear SAA approved organic-vapour respirator.
Correct respirator fit is essential to obtain adequate protection.
In confined spaces where there is inadequate ventilation, wear full-face air supplied breathing apparatus.
Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Clear, colourless, flammable liquid with pleasant petroleum odour; floats on water.

PHYSICAL PROPERTIES

Liquid.
Does not mix with water.
Floats on water.

| | | | |
|---------------------------------|----------------|---------------------------|----------------|
| State | Liquid | Molecular Weight | Not applicable |
| Melting Range (°C) | Not available | Boiling Range (°C) | 147- 194 |
| Solubility in water (g/L) | Immiscible | Flash Point (°C) | 39 calc. |
| pH (1% solution) | Not applicable | Decomposition Temp (°C) | Not available |
| pH (as supplied) | Not available | Autoignition Temp (°C) | Not available |
| Vapour Pressure (kPa) | 0.2 @ 20C | Upper Explosive Limit (%) | 7.5 |
| Specific Gravity (water=1) | 0.827 | Lower Explosive Limit (%) | 1.0 |
| Relative Vapour Density (air=1) | >1 | Volatile Component (%vol) | 99 |
| Evaporation Rate | 0.2 BuAc=1 | | |

Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Product is considered stable and hazardous polymerisation will not occur.

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Section 10 - STABILITY AND REACTIVITY

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

- Considered an unlikely route of entry in commercial/industrial environments.

The liquid is highly discomforting and toxic if swallowed.

Ingestion may result in nausea, pain, vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis.

EYE

- The liquid may produce eye discomfort and is capable of causing temporary impairment of vision and/or transient eye inflammation, ulceration.

The vapour is discomforting to the eyes if exposure is prolonged.

The vapour when concentrated has pronounced eye irritation effects and this gives some warning of high vapour concentrations. If eye irritation occurs seek to reduce exposure with available control measures, or evacuate area.

SKIN

- The material may be mildly discomforting to the skin and may cause drying of the skin, which may lead to dermatitis from repeated exposures over long periods.

Toxic effects may result from skin absorption.

Open cuts, abraded or irritated skin should not be exposed to this material. The material may accentuate any pre-existing skin condition.

INHALED

- The vapour is discomforting to the upper respiratory tract and may be harmful.

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.

If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

Inhalation hazard is increased at higher temperatures.

CHRONIC HEALTH EFFECTS

- Principal routes of exposure are usually by inhalation of vapour skin contact.

Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes.

[PATTYS].

Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following.

Vapours have a narcotic effect and prolonged inhalation may result in

narcosis, unconsciousness. Deep or prolonged narcosis may lead to death.

TOXICITY AND IRRITATION

HURST 133 EXCEL ROLLER & BLANKET WASH:

- Not available. Refer to individual constituents.

AROMATIC HYDROCARBONS:

- unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

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Section 11 - TOXICOLOGICAL INFORMATION

NOTE: Insufficient information to identify possible hazards, including the chronic health effects, of this particular substance.

Section 12 - ECOLOGICAL INFORMATION

AROMATIC HYDROCARBONS:

■ For Xylenes:

log Koc : 2.05-3.08; Koc : 25.4-204; Half-life (hr) air : 0.24-42; Half-life (hr) H₂O surface water : 24-672; Half-life (hr) H₂O ground : 336-8640; Half-life (hr) soil : 52-672; Henry's Pa m³ /mol : 637-879; Henry's atm m³ /mol - 7.68E-03; BOD 5 if unstated - 1.4,1%; COD - 2.56,13% ThOD - 3.125 : BCF : 23; log BCF : 1.17-2.41.

Environmental Fate: Most xylenes released to the environment will occur in the atmosphere and volatilisation is the dominant environmental fate process. Soil - Xylenes are expected to have moderate mobility in soil evaporating rapidly from soil surfaces. The extent of the degradation is expected to depend on its concentration, residence time in the soil, the nature of the soil, and whether resident microbial populations have been acclimated. Xylene can remain below the soil surface for several days and may travel through the soil profile and enter groundwater. Soil and water microbes may transform it into other, less harmful compounds, although this happens slowly. It is not clear how long xylene remains trapped deep underground in soil or groundwater, but it may be months or years.

Atmospheric Fate: Xylene evaporates quickly into the air from surface soil and water and can remain in the air for several days until it is broken down by sunlight into other less harmful chemicals. In the ambient atmosphere, xylenes are expected to exist solely in the vapour phase. Xylenes are degraded in the atmosphere with an estimated atmospheric lifetime of about 0.5 to 2 days. Xylene may contribute to photochemical smog formation. p-Xylene has a moderately high photochemical reactivity under smog conditions, higher than the other xylene isomers. The photooxidation of p-xylene results in the production of carbon monoxide, formaldehyde, glyoxal, methylglyoxal, 3-methylbenzyl nitrate, m-tolualdehyde, 4-nitro-3-xylene, 5-nitro-3-xylene, 2,6-dimethyl-p-benzoquinone, 2,4-dimethylphenol, 6-nitro-2,4-dimethylphenol, 2,6-dimethylphenol, and 4-nitro-2,6-dimethylphenol.

Aquatic Fate: p-xylene may adsorb to suspended solids and sediment in water and is expected to volatilise from water surfaces. Estimated volatilisation half-lives for a model river and model lake are 3 hours and 4 days, respectively. Measurements taken from goldfish, eels and clams indicate that bioconcentration in aquatic organisms is low. Photo-oxidation in the presence of humic acids may play an important role in the abiotic degradation of p-xylene. p-Xylene is biodegradable and has been observed to degrade in pond water however; it is unclear if it degrades in surface waters. p-Xylene has been observed to degrade in anaerobic and aerobic groundwater; however, it is known to persist for many years in groundwater, at least at sites where the concentration might have been quite high. Ecotoxicity: Xylenes are slightly toxic to fathead minnow, rainbow trout and bluegill and not acutely toxic to water fleas. For *Photobacterium phosphoreum* EC₅₀ (24 h): 0.0084 mg/L. and *Gammarus lacustris* LC₅₀ (48 h): 0.6 mg/L.
DO NOT discharge into sewer or waterways.

Ecotoxicity

| Ingredient | Persistence: Water/Soil | Persistence: Air | Bioaccumulation | Mobility |
|-----------------------|----------------------------|----------------------|-----------------|----------|
| aromatic hydrocarbons | No Data Available | No Data Available | | |

continued...

Hurst 133 Excel Roller & Blanket Wash

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Section 13 - DISPOSAL CONSIDERATIONS

- Consult manufacturer for recycling options and recycle where possible .
- Consult State Land Waste Management Authority for disposal.
- Incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE LIQUID

HAZCHEM:
3Y (ADG7)

Land Transport UNDG:

| | | | |
|--------------------------------------|------|-------------------|------|
| Class or division: | 3 | Subsidiary risk: | None |
| UN No.: | 1300 | UN packing group: | III |
| Shipping Name: TURPENTINE SUBSTITUTE | | | |

Air Transport IATA:

| | | | |
|---------------------|------|--------------------|------|
| ICAO/IATA Class: | 3 | ICAO/IATA Subrisk: | None |
| UN/ID Number: | 1300 | Packing Group: | III |
| Special provisions: | A3 | | |

Shipping name: TURPENTINE SUBSTITUTE

Maritime Transport IMDG:

| | | | |
|---------------------|---------|---------------------|------|
| IMDG Class: | 3 | IMDG Subrisk: | None |
| UN Number: | 1300 | Packing Group: | III |
| EMS Number: | F-E,S-E | Special provisions: | 223 |
| Limited Quantities: | 5 L | | |

Shipping name: TURPENTINE SUBSTITUTE

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE

S5

REGULATIONS

Regulations for ingredients

continued...

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Section 15 - REGULATORY INFORMATION

aromatic hydrocarbons (CAS: 63231-51-6) is found on the following regulatory lists;

"Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - organic compounds)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (Domestic water supply quality)", "Australia Exposure Standards", "Australia Hazardous Substances", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix I", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Fragrance Association (IFRA) Survey: Transparency List", "WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water"

No data for Hurst 133 Excel Roller & Blanket Wash (CW: 4927-75)

Section 16 - OTHER INFORMATION

■ 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/references.

■ 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.

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This is the end of the MSDS.