Autoglym

Chemwatch Hazard Alert Code: 1 Chemwatch: 17-86741 Issue Date: 01/11/2019 Version No: 4.1 Print Date: 21/04/2022 Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements S.GHS.AUS.EN

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

| Product name | Autoglym No.33 Rapid Renovator Plus |
|-------------------------------|-------------------------------------|
| Chemical Name | Not Applicable |
| Synonyms | Not Available |
| Chemical formula | Not Applicable |
| Other means of identification | Not Available |

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

| Relevant identified uses | Polish for use on motor vehicle bodies. | | |
|--------------------------|---|--|--|
| | | | |

Details of the supplier of the safety data sheet

| Registered company name | Autoglym |
|-------------------------|---|
| Address | GnG Sales 3 Foundry Road, Seven Hills NSW Australia |
| Telephone | (02) 9680 4464, |
| Fax | Not Available |
| Website | Not Available |
| Email | edwardel@workequip.com.au |

Emergency telephone number

| Association / Organisation | CHEMWATCH EMERGENCY RESPONSE |
|-----------------------------------|------------------------------|
| Emergency telephone numbers | +61 1800 951 288 |
| Other emergency telephone numbers | +61 2 9186 1132 |

Once connected and if the message is not in your prefered language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

ChemWatch Hazard Ratings

| | | Min | Max | |
|--------------|---|-----|-----|---|
| Flammability | 1 | | | |
| Toxicity | 1 | | | 0 = Minimum |
| Body Contact | 1 | | 1 | 1 = Low |
| Reactivity | 1 | | | 2 = Moderate 3 = High 4 = Extreme |
| Chronic | 0 | | 1 | |

| Poisons Schedule | S5 |
|-------------------------------|---|
| Classification ^[1] | Aspiration Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 3, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |

Label elements

| Hazard pictogram(s) | |
|---------------------|--------|
| Signal word | Danger |

| H304 | May be fatal if swallowed and enters airways. | |
|------|--|--|
| H412 | Harmful to aquatic life with long lasting effects. | |
| H336 | May cause drowsiness or dizziness. | |

Precautionary statement(s) Prevention

| P271 | Use only a well-ventilated area. |
|------|-------------------------------------|
| P261 | Avoid breathing mist/vapours/spray. |
| P273 | Avoid release to the environment. |

Precautionary statement(s) Response

| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider. |
|-----------|--|
| P331 | Do NOT induce vomiting. |
| P312 | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |

Precautionary statement(s) Storage

| 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 to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|--------------|--|---|
| 64742-47-8. | 10-30 | isoparaffins petroleum hydrotreated HFP |
| 1174522-09-8 | 5-10 | hydrocarbons. C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics |
| 8042-47-5 | 1-5 | white mineral oil (petroleum) |
| 56-81-5 | 1-5 | glycerol |
| 1189173-42-9 | 1-5 | solvent naphtha petroleum, heavy aromatic |
| 1174522-19-0 | 1-5 | hydrocarbons, C16-20 n-alkanes, isoalkanes, cyclics, <2% aromatic |
| Legend: | Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available | |

SECTION 4 First aid measures

| Description of first aid measures | | | | |
|-----------------------------------|---|--|--|--|
| Eye Contact | If this product comes in contact with the eyes: Wash out immediately with fresh 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. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. | | | |
| Skin Contact | 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. | | | |
| Inhalation | 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, without delay. | | | |
| Ingestion | 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. 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. Avoid giving milk or oils. Avoid giving alcohol. If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. | | | |

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 petroleum distillates

• In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption - decontamination (induced emesis or lavage) is controversial and should be considered on the merits of each individual case; of course the usual precautions of an endotracheal tube should be considered prior to lavage, to prevent aspiration.

Individuals intoxicated by petroleum distillates should be hospitalized immediately, with acute and continuing attention to neurologic and cardiopulmonary function.

Positive pressure ventilation may be necessary.

Acute central nervous system signs and symptoms may result from large ingestions of aspiration-induced hypoxia.

• After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary oedema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated.

Gastrointestinal symptoms are usually minor and pathological changes of the liver and kidneys are reported to be uncommon in acute intoxications.

Chlorinated and non-chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur. Careful consideration
of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.

BP America Product Safety & Toxicology Department

SECTION 5 Firefighting measures

Extinguishing media

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

Special hazards arising from the substrate or mixture

| Fire Incompatibility Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result Advice for firefighters Advice for firefighters A Aert Fire Brigade and tell them location and nature of hazard. Vear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. 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. Combustion Paproach containers of carbon monoxide (CO). May emit acrid smoke. Mist containing combustible materials may be explosive. Combustion products include: May emit corrosive fumes. May entit corrosive fumes. <li< th=""><th></th><th></th></li<> | | |
|--|-------------------------|---|
| Advice for firefighters Advice for firefighters Fire Fighting Advice for firefighters Sight fire hazard when exposed to heat or flame. Sight fire hazard when exposed to heat or flame. Sight fire hazard when exposed to heat or flame. Sight fire hazard when exposed to heat or flame. Sight fire hazard when exposed to heat or flame. Sight fire hazard when exposed to heat or flame. Sight fire hazard when exposed to heat or flame. Sight fire hazard when exposed to heat or flame. Sight fire hazard when exposed to heat or flame. Sight fire hazard when exposed to heat or flame. Sight fire hazard when exposed to heat or flame. Sight fire hazar | Fire Incompatibility | Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
| Fire Fighting Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. 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. Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include: Combustion (CO2) other pyrolysis products typical of burning organic material. May emit corrosive fumes. May emit corrosive fumes. May emit corrosive fumes. | Advice for firefighters | |
| Fire/Explosion Hazard• Combustible.Fire/Explosion Hazard• Combustible.Heating may cause expansion or decomposition leading to violent rupture of containers.• On combustion, may emit toxic fumes of carbon monoxide (CO).• May emit acrid smoke.• Mists containing combustible materials may be explosive.Combustion products include: carbon dioxide (CO2)• other pyrolysis products typical of burning organic material. May emit corrosive fumes.HAZCHEMNot Applicable | Fire Fighting | Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. 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. |
| HAZCHEM Not Applicable | Fire/Explosion Hazard | Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO2) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes. |
| | HAZCHEM | Not Applicable |

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

| Minor Spills | Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. |
|--------------|--|
| Major Spills | Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by all means available, spillage from entering drains or water courses. Consider evacuation (or protect in place). No smoking, naked lights or ignition sources. |

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

SECTION 7 Handling and storage

Precautions for safe handling

| | The conductivity of this material may make it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 |
|---------------|--|
| Safe handling | pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m., Whether a liquid is nonconductive or semi-conductive, the |
| eale hanaling | precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly |

| | Containers, even those that have been emptied, may contain explosive vapours. |
|---------------------------------|---|
| | Do NOT cut, drill, grind, weld or perform similar operations on or near containers. |
| | DO NOT allow clothing wet with material to stay in contact with skin |
| | Electrostatic discharge may be generated during pumping - this may result in fire. |
| | Ensure electrical continuity by bonding and grounding (earthing) all equipment. |
| | Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its |
| | diameter, then $\leq 7 \text{ m/sec}$). |
| | Avoid splash filling. |
| | Do NOT use compressed air for filling discharging or handling operations. |
| | Avoid all personal contact, including inhalation. |
| | Wear protective clothing when risk of exposure 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. |
| | Store in original containers. |
| | Keen containers securely sealed |
| | No smoking, naked lights or ignition sources. |
| Other information | Store in a cool. drv. well-ventilated area. |
| | Store away from incompatible materials and foodstuff containers. |
| | Protect containers against physical damage and check regularly for leaks. |
| | |
| Conditions for safe storage, in | cluding any incompatibilities |
| | ▶ Metal can or drum |
| Suitable container | Packaging as recommended by manufacturer. |
| | Check all containers are clearly labelled and free from leaks. |
| | For alkyl aromatics: |
| | The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. The most common and dominant one is the attack by |
| | oxidation at benzylic carbon as the intermediate formed is stabilised by resonance structure of the ring. |
| | |

- Following reaction with oxygen and under the influence of sunlight, a hydroperoxide at the alpha-position to the aromatic ring, is the primary oxidation product formed (provided a hydrogen atom is initially available at this position) this product is often short-lived but may be stable dependent on the nature of the aromatic substitution; a secondary C-H bond is more easily attacked than a primary C-H bond whilst a tertiary C-H bond is even more susceptible to attack by oxygen
- Monoalkylbenzenes may subsequently form monocarboxylic acids; alkyl naphthalenes mainly produce the corresponding naphthalene carboxylic acids.
- ▶ Oxidation in the presence of transition metal salts not only accelerates but also selectively decomposes the hydroperoxides.
- Hock-rearrangement by the influence of strong acids converts the hydroperoxides to hemiacetals. Peresters formed from the hydroperoxides undergo Criegee rearrangement easily.
- Low molecular weight alkanes:
 - May react violently with strong oxidisers, chlorine, chlorine dioxide, dioxygenyl tetrafluoroborate.
 - May react with oxidising materials, nickel carbonyl in the presence of oxygen, heat.
 - Are incompatible with nitronium tetrafluoroborate(1-), halogens and interhalogens
 - may generate electrostatic charges, due to low conductivity, on flow or agitation.
 - Avoid flame and ignition sources

influence the conductivity of a liquid

Redox reactions of alkanes, in particular with oxygen and the halogens, are possible as the carbon atoms are in a strongly reduced condition. Reaction with oxygen (if present in sufficient quantity to satisfy the reaction stoichiometry) leads to combustion without any smoke, producing carbon dioxide and water. Free radical halogenation reactions occur with halogens, leading to the production of haloalkanes.

- Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents.
- Aromatics can react exothermically with bases and with diazo compounds.

SECTION 8 Exposure controls / personal protection

Control parameters

Emergency Limits

Occupational Exposure Limits (OEL)

Storage incompatibility

INGREDIENT DATA

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|------------------------------|--|---------------------------|--------------|------------------|------------------|--|
| Australia Exposure Standards | isoparaffins petroleum hydrotreated HFP | White spirits | 790 mg/m3 | Not Available | Not Available | Not Available |
| Australia Exposure Standards | white mineral oil (petroleum) | Oil mist, refined mineral | 5 mg/m3 | Not Available | Not Available | Not Available |
| Australia Exposure Standards | glycerol | Glycerin mist | 10 mg/m3 | Not Available | Not Available | (a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica. |

| Ingredient | TEEL-1 | TEEL-2 | | TEEL-3 |
|---|---------------|-------------|---------------|---------------|
| isoparaffins petroleum hydrotreated HFP | 300 mg/m3 | 1,800 mg/m3 | | 29500** mg/m3 |
| white mineral oil (petroleum) | 140 mg/m3 | 1,500 mg/m3 | | 8,900 mg/m3 |
| glycerol | 45 mg/m3 | 180 mg/m3 | | 1,100 mg/m3 |
| | | | | |
| Ingredient | Original IDLH | | Revised IDLH | |
| isoparaffins petroleum hydrotreated HFP | 20,000 mg/m3 | | Not Available | |
| hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics | Not Available | | Not Available | |
| white mineral oil (petroleum) | 2,500 mg/m3 | | Not Available | |

| Ingredient | Original IDLH | Revised IDLH | | | |
|---|---|---|--|--|--|
| glycerol | Not Available | Not Available | | | |
| solvent naphtha petroleum, heavy aromatic | Not Available | Not Available | | | |
| hydrocarbons, C16-20 n-alkanes, isoalkanes, cyclics, <2% aromatic | Not Available | Not Available | | | |
| Occupational Exposure Banding | | | | | |
| Ingredient | Occupational Exposure Band Rating | Occupational Exposure Band Limit | | | |
| hydrocarbons, C16-20 n-alkanes, isoalkanes, cyclics, <2% aromatic | E | ≤ 0.1 ppm | | | |
| Notes: | Occupational exposure banding is a process of assigning chemicals into s adverse health outcomes associated with exposure. The output of this pro range of exposure concentrations that are expected to protect worker hea | specific categories or bands based on a chemical's potency and the ccess is an occupational exposure band (OEB), which corresponds to a lth. | | | |
| Exposure controls | | | | | |
| Appropriate engineering controls | Engineering controls are used to remove a hazard or place a barrier betw be highly effective in protecting workers and will typically be independent The basic types of engineering controls are: Process controls which involve changing the way a job activity or process Enclosure and/or isolation of emission source which keeps a selected haz "adds" and "removes" air in the work environment. Ventilation can remove ventilation system must match the particular process and chemical or con | een the worker and the hazard. Well-designed engineering controls can of worker interactions to provide this high level of protection. is done to reduce the risk. card "physically" away from the worker and ventilation that strategically or dilute an air contaminant if designed properly. The design of a taminant in use. | | | |
| Personal protection | | | | | |
| Eye and face protection | Safety glasses with side shields. 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 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. | | | | |
| Skin protection | See Hand protection below | | | | |
| Hands/feet protection | Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber 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. 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. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. | | | | |
| Body protection | See Other protection below | | | | |
| Other protection | Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent] Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715 or national equivalent] Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely. Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood. Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Exe wash unit. | | | | |

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:

Autoglym No.33 Rapid Renovator Plus

Material

NATURAL RUBBER

Respiratory protection

CPI

А

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum | Half-Face | Full-Face | Powered Air |
|-------------------|------------|------------|-------------|
| Protection Factor | Respirator | Respirator | Respirator |

| NATURAL+NEOPRENE | А |
|------------------|---|
| NITRILE | A |
| | |

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

 $\ensuremath{\text{NOTE}}$: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

| up to 10 x ES | A-AUS P2 | - | A-PAPR-AUS / Class 1 P2 |
|----------------|----------|-----------------------|----------------------------|
| up to 50 x ES | - | A-AUS / Class 1 P2 | - |
| up to 100 x ES | - | A-2 P2 | A-PAPR-2 P2 ^ |

^ - Full-face

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 deqC)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

| Appearance | White liquid with solvent like odour. | | | |
|---|---------------------------------------|--|----------------|--|
| | | | | |
| Physical state | Liquid | Relative density (Water = 1) | ~1.1433 | |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available | |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available | |
| pH (as supplied) | Not Available | Decomposition temperature | Not Available | |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | >20.5 | |
| Initial boiling point and boiling range (°C) | 100 | Molecular weight (g/mol) | Not Applicable | |
| Flash point (°C) | Not Available | Taste | Not Available | |
| Evaporation rate | Not Available | Explosive properties | Not Available | |
| Flammability | Not Available | Oxidising properties | Not Available | |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm or mN/m) | Not Available | |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol) | Not Available | |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available | |
| Solubility in water | Not Available | pH as a solution (Not Available%) | 8.29 | |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available | |

SECTION 10 Stability and reactivity

| Reactivity | See section 7 |
|-------------------------------------|--|
| Chemical stability | Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |
| Hazardous decomposition products | See section 5 |

SECTION 11 Toxicological information

Information on toxicological effects

| Inhaled | The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. 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. 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. 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 de may be fatal. Nerve damage can be caused by some non-ring hydrocarbons. Symptoms are temporary, and include weakness, tremors, increased | | |
|---|---|---|--|
| | some convulsions, excessive tears with discolouration and inco-ordination lasting up to 24 hours. The acute toxicity of inhaled alkylbenzene is best described by central nervous system depression. These compounds may also act as general anaesthetics. Whole body symptoms of poisoning include light-headedness, nervousness, apprehension, a feeling of well-being, confusion, dizziness, drowsiness, ringing in the ears, blurred or double vision, vomiting and sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness, depression of breathing, and arrest. Heart stoppage may result from cardiovascular collapse. A slow heart rate and low blood pressure may also occur. Alkylbenzenes are not generally toxic except at high levels of exposure. Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the | | |
| | individual. | | |
| Ingestion | (ICSC13733) Accidental ingestion of the material may be damaging to the health of the individual. Isoparaffinic hydrocarbons cause temporary lethargy, weakness, inco-ordination and diarrhoea. Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous. 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. Considered an unlikely route of entry in commercial/industrial environments. The liquid may produce gastrointestinal discomfort and may be harmfruil if swallowed | | |
| Skin Contact | Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Skin exposure to isoparaffins may produce slight to moderate irritation in animals and humans. Rare sensitisation reactions in humans have occurred. Open cuts, abraded or irritated skin should not be exposed to this material The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives. The material may accentuate any pre-existing dermatitis condition Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. | | |
| Eye | This material can cause eye irritation and damage in some persons. Instillation of isoparaffins into rabbit eyes produces only slight irritation. 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. | | |
| Chronic | Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. There is ample evidence that this material can be regarded as being able to cause cancer in humans based on experiments and other information. Based on experiments and other information, there is ample evidence to presume that exposure to this material can cause genetic defects that can be inherited. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Implantation studies in rats show that paraffin oils may cause tumours. As a general rule, the highly refined paraffins are believed to contain less suspect polyaromatic hydrocarbons than less refined grades or waxes derived from napthenic base-stocks. 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. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS] | | |
| | τονιατν | | |
| Autoglym No.33 Rapid Renovator Plus | Not Available | Not Available | |
| isoparaffins petroleum hydrotreated HFP | TOXICITY Dermal (rabbit) LD50: >2000 mg/kg ^[2] Inhalation(Rat) LC50; >4.3 mg/l4h ^[1] Oral (Rat) LD50: >5000 mg/kg ^[2] | IRRITATION Eye: no adverse effect observed (not irritating) ^[1] Skin: adverse effect observed (irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1] | |
| hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics | TOXICITY dermal (rat) LD50: >2000 mg/kg ^[1] Inhalation(Rat) LC50; >5.266 mg/L4h ^[1] Oral (Rat) LD50; >5000 mg/kg ^[1] | IRRITATION Not Available | |
| white mineral oil (petroleum) | TOXICITY Dermal (rabbit) LD50: >2000 mg/kg ^[1] Inhalation(Rat) LC50; >4.5 mg/l4h ^[1] Oral (Rat) LD50; >5000 mg/kg ^[1] | IRRITATION Eye: no adverse effect observed (not irritating) ^[1] Skin: adverse effect observed (irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1] | |
| glycerol | TOXICITY dermal (guinea pig) LD50: 58500 mg/kg ^[1] Oral (Mouse) LD50; 4090 mg/kg ^[2] | IRRITATION Not Available | |
| | | | |
| solvent naphtha petroleum, heavy aromatic | TOXICITY | IRRITATION | |

| | Inhalation(Rat) LC50; >0.003 mg/L4h ^[1] | Eye: no adverse effect observed (not irritating) ^[1] |
|--|---|--|
| | Oral (Rat) LD50; 512 mg/kg ^[1] | Skin: adverse effect observed (irritating) ^[1] |
| | ΤΟΧΙCITY | IRRITATION |
| hydrocarbons, C16-20 | Dermal (rabbit) LD50: 2000 mg/kg ^[2] | Not Available |
| n-alkanes, isoalkanes, cyclics, <2% aromatic | Inhalation(Rat) LC50; >5.266 mg/L4h ^[1] | |
| | Oral (Rat) LD50; 5000 mg/kg ^[2] | |
| Legend: | Value obtained from Europe ECHA Registered Substances - Acute to specified data extracted from RTECS - Register of Toxic Effect of chemi | xicity 2.* Value obtained from manufacturer's SDS. Unless otherwise ical Substances |
| HYDROCARBONS, C10-13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS | Animal testing showed exposure to high concentrations (over 3500 parts and spasms. Cerebellar damage was found on autopsy in some animals system. | s per million) of C9 to C13 alkanes in air caused inco-ordination, seizures s. It appears that exposure may possibly damage the central nervous |
| WHITE MINERAL OIL (PETROLEUM) | Oral (rat) TCLo: 92000 mg/kg/92D-Cont. Generally the toxicity and irritat shown the long term risk of skin cancer that follows persistent skin conta that produces low content of both polyaromatics (PAH) and benz-alpha- The materials included in the Lubricating Base Oils category are related The potential toxicity of a specific distillate base oil is inversely related to the adverse effects of these materials are associated with undesirable of Distillate base oils receiving the same degree or extent of processing w The potential toxicity of residual base oils is independent of the degree or her productive and developmental toxicity of the distillate base oils is Unrefined & mildly refined distillate base oils contain the highest levels of molecules and have shown the highest potential cancer-causing and mu are produced from unrefined and mildly refined oils by removing or trans refined base oils, the highly and severely refined distillate base oils have low mammalian toxicity. Testing of residual oils for mutation-causing and belief that these materials lack biologically active components or the contoxicity testing has consistently shown that lubricating base oils. In animal studies, the acute, oral, semilethal dose is >5g/kg body weight semilethal concentration for inhalation is 2.18 to >4 mg/L. The materials has been negative. The e testes and lung have been observed, as well as the formation of granulo reproductive toxicity or significant increases in birth defects. The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testil | tion is of low order. White oils and highly/solvent refined oils have not amination with some other mineral oils, due in all probability to refining pyrenes (BaP) from both process and physical-chemical perspectives; o the severity or extent of processing the oil has undergone, since: components, and degree of processing; vill have similar toxicities; of processing the oil receives. s inversely related to the degree of processing. of undesirable components, have the largest variation of hydrocarbon itation-causing activities. Highly and severely refined distillate base oils sforming undesirable components. In comparison to unrefined and mildly a smaller range of hydrocarbon molecules and have demonstrated very d cancer-causing potential has shown negative results, supporting the mponents are largely non-bioavailable due to their molecular size. w acute toxicities. Numerous tests have shown that a lubricating base oil yclic aromatic compound (PAC) content, and the level of DMSO ated to the degree/conditions of processing. t and the semilethal dose by skin contact is >2g/kg body weight. The have varied from "non-irritating" to "moderately irritating" when tested for effects of repeated exposure vary by species; in animals, effects to the ormas. In animals, these substances have not been found to cause |
| GLYCEROL | Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. At very high concentrations, evidence predicts that glycerol may cause tremor, irritation of the skin, eyes, digestive tract and airway. Otherwise it | |
| SOLVENT NAPHTHA PETROLEUM, HEAVY AROMATIC | For petroleum: This product contains benzene, which can cause acute myeloid leukaemia, and n-hexane, which can be metabolized to compounds which are toxic to the nervous system. This product contains toluene, and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains ethyl benzene and naphthalene, from which animal testing shows evidence of tumour formation. Cancer-causing potential: Animal testing shows inhaling petroleum causes tumours of the liver and kidney; these are however not considered to be relevant in humans. Mutation-causing potential: Most studies involving gasoline have returned negative results regarding the potential to cause mutations, including all recent studies in living human subjects (such as in petrol service station attendants). Reproductive toxicity: Animal studies show that high concentrations of toluene (>0.1%) can cause developmental effects such as lower birth weight and developmental toxicity to the nervous system of the foetus. Other studies show no adverse effects on the foetus. Human effects: Prolonged or repeated contact may cause defatting of the skin which can lead to skin inflammation and may make the skin more susceptible to irritation and penetration by other materials. Animal testing shows that exposure to gasoline over a lifetime can cause kidney cancer, but the relevance in humans is questionable. | |
| ISOPARAFFINS PETROLEUM HYDROTREATED HFP & HYDROCARBONS, C16-20 N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATIC | No significant acute toxicological data identified in literature search. | |
| ISOPARAFFINS PETROLEUM HYDROTREATED HFP & HYDROCARBONS, C10-13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS & SOLVENT NAPHTHA PETROLEUM, HEAVY AROMATIC | Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins. The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell. The gut cell may play a major role in determining the proportion of hydrocarbon that becomes available to be deposited unchanged in peripheral tissues such as in the body fat stores or the liver. | |
| HYDROCARBONS, C10-13, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS & | For high molecular weight aliphatic hydrocarbons: Acute toxicity: Four studies were available for acute oral toxicity, dealing with the toxicit | ty of C5-C20 normal paraffins, C14-C17 n-alkanes, C14-C16 paraffins |

| HYDROCARBONS, C16-20 N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATIC | and isohexadecane. All studies were conducted similarly to OECD guideline 401 without GLP compliance. All studies show no mortality at concentrations up to 5000 mg/kg bw. Three studies were available for acute dermal toxicity, dealing with the toxicity of C5-C20 normal paraffins, C14-C17 n-alkanes and C14-C16 paraffins. All studies were conducted similarly to OECD guideline 402 without GLP compliance. All studies show no mortality at concentrations equal to or higher than 2000 mg/kg bw. A reliable study and a non-reliable study were available for acute inhalation, dealing with the toxicity of hydrocarbons, C10-C12, isoalkanes, < 2% aromatics and C14-C16 n-paraffins, respectively. All studies were conducted similarly to OECD guideline 403. | | |
|---|--|--------------------------|--|
| | ¥ | Carcinogenicity | ¥ |
| Acute Toxicity | ^ | Carcinogenicity | <u>^</u> |
| Skin Irritation/Corrosion | × | Reproductivity | × |
| Serious Eye Damage/Irritation | × | STOT - Single Exposure | × |
| Respiratory or Skin sensitisation | × | STOT - Repeated Exposure | × |
| Mutagenicity | × | Aspiration Hazard | ✓ |
| | | Legend: X – Data either | not available or does not fill the criteria for classification |

SECTION 12 Ecological information

| Autoglym No.33 Rapid Renovator Plus | Endpoint | Test Duration (hr) | Species | Value | Source |
|---|------------------|--------------------|-------------------------------|------------------|------------------|
| | Not Available | Not Available | Not Available | Not Available | Not Available |
| | Endpoint | Test Duration (hr) | Species | Value | Source |
| | NOEC(ECx) | 3072h | Fish | 1mg/l | 1 |
| | NOEC(ECx) | 504h | Crustacea | 0.097mg/l | 2 |
| isoparaffins petroleum | EC50 | 72h | Algae or other aquatic plants | 0.53mg/l | 2 |
| hydrotreated HFP | EC50 | 96h | Algae or other aquatic plants | 0.58mg/l | 2 |
| | NOEC(ECx) | 720h | Crustacea | 0.024mg/l | 2 |
| | LC50 | 96h | Fish | 0.14mg/l | 2 |
| | EC50 | 96h | Algae or other aquatic plants | 0.277mg/l | 2 |
| hydrocarbons, C10-13, | Endpoint | Test Duration (hr) | Species | Value | Sourc |
| alkanes, isoalkanes, cyclics, <2% aromatics | NOEC(ECx) | 72h | Algae or other aquatic plants | 100mg/l | 2 |
| | Endpoint | Test Duration (hr) | Species | Value | Sourc |
| white mineral oil (petroleum) | LC50 | 96h | Fish | >10000mg/L | 2 |
| | Endpoint | Test Duration (hr) | Species | Value | Sourc |
| glycerol | EC0(ECx) | 24h | Crustacea | >500mg/l | 1 |
| | LC50 | 96h | Fish | 885mg/l | 2 |
| | Endpoint | Test Duration (hr) | Species | Value | Sourc |
| | EC50(ECx) | 48h | Crustacea | 0.95mg/l | 1 |
| solvent naphtha petroleum, | LC50 | 96h | Fish | 0.58mg/l | 2 |
| heavy aromatic | EC50 | 72h | Algae or other aquatic plants | <1mg/l | 1 |
| | EC50 | 48h | Crustacea | 0.95mg/l | 1 |
| | EC50 | 96h | Algae or other aquatic plants | 1mg/l | 2 |
| hydrocarbons, C16-20 | Endpoint | Test Duration (hr) | Species | Value | Source |
| n-alkanes, isoalkanes, cyclics, <2% aromatic | Not | Not Available | Not Available | Not | Not |

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.

Harmful to aquatic organisms.

For Aromatic Substances Series:

Environmental Fate: Large, molecularly complex polycyclic aromatic hydrocarbons, or PAHs, are persistent in the environment longer than smaller PAHs.

Atmospheric Fate: PAHs are 'semi-volatile substances' which can move between the atmosphere and the Earth's surface in repeated, temperature-driven cycles of deposition and volatilization. Terrestrial Fate: BTEX compounds have the potential to move through soil and contaminate ground water, and their vapors are highly flammable and explosive. Ecotoxicity - Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus. The order of most toxic to least in a study using grass shrimp and brown shrimp was dimethylnaphthalenes > methylnaphthalenes > naphthalenes. Anthrcene is a phototoxic PAH.

When released in the environment, alkanes don't undergo rapid biodegradation, because they have no functional groups (like hydroxyl or carbonyl) that are needed by most organisms in order to metabolize the compound.

However, some bacteria can metabolise some alkanes (especially those linear and short), by oxidizing the terminal carbon atom. The product is an alcohol, that could be next oxidised

to an aldehyde, and finally to a carboxylic acid. The resulting fatty acid could be metabolised through the fatty acid degradation pathway. For petroleum distillates:

Environmental fate:

When petroleum substances are released into the environment, four major fate processes will take place: dissolution in water, volatilization, biodegradation and adsorption. These processes will cause changes in the composition of these UVCB substances. In the case of spills on land or water surfaces, photodegradation-another fate process-can also be significant.

As noted previously, the solubility and vapour pressure of components within a mixture will differ from those of the component alone. These interactions are complex for complex UVCBs such as petroleum hydrocarbons.

Each of the fate processes affects hydrocarbon families differently. 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.

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 |
|------------|-------------------------|------------------|
| glycerol | LOW | LOW |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|--|----------------------|
| isoparaffins petroleum hydrotreated HFP | LOW (BCF = 159) |
| glycerol | LOW (LogKOW = -1.76) |
| solvent naphtha petroleum, heavy aromatic | LOW (BCF = 159) |
| Mobility in soil | |

| Ingredient | Mobility |
|------------|----------------|
| glycerol | HIGH (KOC = 1) |

SECTION 13 Disposal considerations

| Waste treatment methods | |
|------------------------------|--|
| Product / Packaging disposal | Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product. 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. A Hierarchy of Controls seems to be common - the user should investigate: Reduction Recycling Disposal (if all else fails) 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. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sever may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Recycle containers if possible, or dispose of in an authorised landfill. |

SECTION 14 Transport information

| Labels Required | | |
|---|----------------|--|
| Marine Pollutant | NO | |
| HAZCHEM | Not Applicable | |
| Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS | | |
| Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS | | |

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name

| Product name | Group |
|---|---------------|
| isoparaffins petroleum hydrotreated HFP | Not Available |
| hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics | Not Available |
| white mineral oil (petroleum) | Not Available |
| glycerol | Not Available |
| solvent naphtha petroleum, heavy aromatic | Not Available |
| hydrocarbons, C16-20 n-alkanes, isoalkanes, cyclics, <2% aromatic | Not Available |

Transport in bulk in accordance with the ICG Code

| Product name | Ship Type |
|---|---------------|
| isoparaffins petroleum hydrotreated HFP | Not Available |
| hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics | Not Available |
| white mineral oil (petroleum) | Not Available |
| glycerol | Not Available |
| solvent naphtha petroleum, heavy aromatic | Not Available |
| hydrocarbons, C16-20 n-alkanes, isoalkanes, cyclics, <2% aromatic | Not Available |

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

| isoparaffins petroleum hydrotreated HFP is found on the following regulatory lists | | | | |
|---|--|--|--|--|
| Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals | Chemical Footprint Project - Chemicals of High Concern List | | | |
| Australian Inventory of Industrial Chemicals (AIIC) | International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs | | | |
| hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics is found on the | e following regulatory lists | | | |
| Not Applicable | | | | |
| white mineral oil (petroleum) is found on the following regulatory lists | | | | |
| Australian Inventory of Industrial Chemicals (AIIC) | International Agency for Research on Cancer (IARC) - Agents Classified by the IARC | | | |
| Chemical Footprint Project - Chemicals of High Concern List | Monographs | | | |
| | International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans | | | |
| glycerol is found on the following regulatory lists | | | | |
| Australian Inventory of Industrial Chemicals (AIIC) | | | | |
| | | | | |

solvent naphtha petroleum, heavy aromatic is found on the following regulatory lists Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australian Inventory of Industrial Chemicals (AIIC)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

| hydrocarbons, C16-20 n-alkanes, isoalkanes, cyclics, <2% ar | romatic is found on the following regulatory lists |
|---|--|
| Not Applicable | |

National Inventory Status

| National Inventory | Status |
|--|--|
| Australia - AIIC / Australia Non-Industrial Use | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatics;="" ><2% aromatic)> |
| Canada - DSL | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatics;="" ><2% aromatic)> |
| Canada - NDSL | No (isoparaffins petroleum hydrotreated HFP; hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" white="" mineral="" oil="" (petroleum);="" glycerol;="" solvent="" naphtha="" petroleum,="" heavy="" aromatic;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,="" cyclics |
| China - IECSC | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatic)> |
| Europe - EINEC / ELINCS / NLP | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatic>> |
| Japan - ENCS | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" white="" mineral="" oil="" (petroleum);="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><<% aromatics;="" white="" mineral="" oil="" oil="" (petroleum);="" hydrocarbons,="" |
| Korea - KECI | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatic>> |

| National Inventory | Status | | |
|---------------------|---|--|--|
| New Zealand - NZIoC | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatic)> | | |
| Philippines - PICCS | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatic)> | | |
| USA - TSCA | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatic)> | | |
| Taiwan - TCSI | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatic)> | | |
| Mexico - INSQ | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatic)> | | |
| Vietnam - NCI | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatic)> | | |
| Russia - FBEPH | No (hydrocarbons, C10-13, n-alkanes, isoalkanes, cyclics, <2% aromatics;="" hydrocarbons,="" c16-20="" n-alkanes,="" isoalkanes,="" cyclics,=""><2% aromatic)> | | |
| Legend: | Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration. | | |

SECTION 16 Other information

| Revision Date | 01/11/2019 |
|---------------|------------|
| Initial Date | 04/04/2019 |

SDS Version Summary

| Version | Date of Update | Sections Updated |
|---------|-------------------|--|
| 3.1 | 05/04/2019 | Classification, Environmental, Fire Fighter (fire/explosion hazard), First Aid (swallowed), Spills (major), Spills (minor), Transport, Transport Information |
| 4.1 | 01/11/2019 | One-off system update. NOTE: This may or may not change the GHS classification |

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.

The 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 |
| ES: Exposure Standard |
| 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 |
| AIIC: Australian Inventory of Industrial Chemicals |
| DSL: Domestic Substances List |
| NDSL: Non-Domestic Substances List |
| IECSC: Inventory of Existing Chemical Substance in China |
| EINECS: European INventory of Existing Commercial chemical Substances |
| ELINCS: European List of Notified Chemical Substances |
| NLP: No-Longer Polymers |
| ENCS: Existing and New Chemical Substances Inventory |
| KECI: Korea Existing Chemicals Inventory |
| NZIoC: New Zealand Inventory of Chemicals |
| PICCS: Philippine Inventory of Chemicals and Chemical Substances |
| TSCA: Toxic Substances Control Act |
| TCS: Taiwan Chemical Substance Inventory |
| INSQ: Inventario Nacional de Sustancias Químicas |
| NCC: National Chemical Inventory |
| FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances |
| |

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