

SPEED NZ Limited

Chemwatch: 5596-73 Version No: 2.1

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

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

Product Identifier

Product name	2740 Motorbike 4T Fuel System Cleaner	
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	Additives.
Relevant identified uses	Use according to manufacturer's directions.

Details of the manufacturer or supplier of the safety data sheet

Registered company name	SPEED NZ Limited
Address	133 Newton Street Mount Maunganui Tauranga 3116 New Zealand
Telephone	Not Available
Fax	Not Available
Website	Not Available
Email	Not Available

Emergency telephone number

Association / Organisation	SPEED NZ Limited	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	0800 764 766	+64 800 700 112
Other emergency telephone numbers	Not Available	+61 3 9573 3188

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

SECTION 2 Hazards identification

Classification of the substance or mixture

Classification ^[1]	Flammable Liquids Category 4, Aspiration Hazard Category 1, Serious Eye Damage/Eye Irritation Category 2, Carcinogenicity Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 3	
Legend:	1. Classified by Chernwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	
Determined by Chemwatch using GHS/HSNO criteria	3.1D, 6.1E (aspiration), 6.4A, 6.7B, 9.1C	

Label elements

Hazard pictogram(s)	
Signal word	Danger

Hazard statement(s)

H227	Combustible liquid.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.

Chemwatch Hazard Alert Code: 2

Issue Date: **10/04/2023** Print Date: **21/04/2023** S.GHS.NZL.EN

H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s) Prevention

, ,	
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P273	Avoid release to the environment.
P264	Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

• • • •	•	
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.	
P331	Do NOT induce vomiting.	
P308+P313	IF exposed or concerned: Get medical advice/ attention.	
P370+P378	P370+P378 In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P337+P313	If eye irritation persists: Get medical advice/attention.	

Precautionary statement(s) Storage

P403	Store in a well-ventilated place.
P405	Store locked up.

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
64742-48-9.	>80	alkanes. C11-13-iso-
64742-94-5	1-<2.5	solvent naphtha petroleum, heavy aromatic
91-20-3	0.1-<0.25	naphthalene
Legend:	Legend: 1. Classified by Chernwatch; 2. Classification drawn from CCID EPA NZ; 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 measur	res
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.
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

- 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] 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 naphthalene intoxication: Naphthalene requires hepatic and microsomal activation prior to the production of toxic effects. Liver microsomes catalyse the initial synthesis of the reactive 1,2-epoxide intermediate which is subsequently oxidised to naphthalene dihydrodiol and alpha-naphthol. The 2-naphthoquinones are thought to produce haemolysis, the 1,2-naphthoquinones are thought to be responsible for producing cataracts in rabbits, and the glutathione-adducts of naphthalene-1,2-oxide are probably responsible for pulmonary toxicity. Suggested treatment regime:

- Induce emesis and/or perform gastric lavage with large amounts of warm water where oral poisoning is suspected.
- Instill a saline cathartic such as magnesium or sodium sulfate in water (15 to 30g).
- Demulcents such as milk, egg white, gelatin, or other protein solutions may be useful after the stomach is emptied but oils should be avoided because they promote absorption.
- If eyes/skin contaminated, flush with warm water followed by the application of a bland ointment.
- Severe anaemia, due to haemolysis, may require small repeated blood transfusions, preferably with red cells from a non-sensitive individual.
 Where intravascular haemolysis, with haemoglobinuria occurs, protect the kidneys by promoting a brisk flow of dilute urine with, for example, an osmotic diuretic such as mannitol. It may be useful to alkalinise the urine with small amounts of sodium bicarbonate but many researchers doubt whether this prevents blockage of the renal tubules.
- Use supportive measures in the case of acute renal failure. GOSSELIN, SMITH HODGE: Clinical Toxicology of Commercial Products, 5th Ed.

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	
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. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.
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.

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. Place in a suitable, labelled container for waste disposal.
Major Spills	 Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. 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.
	Continued.

 Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. 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 waterway experies control cont	
 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. 	Stop leak if safe to do so.
 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. 	Contain spill with sand, earth or vermiculite.
 Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. 	 Collect recoverable product into labelled containers for recycling.
Wash area and prevent runoff into drains.	Absorb remaining product with sand, earth or vermiculite.
	Collect solid residues and seal in labelled drums for disposal.
If contamination of drains or waterways equire, advice emergency convices	Wash area and prevent runoff into drains.
· In containing of drains of waterways occurs, advise emergency services.	If contamination of drains or waterways occurs, advise emergency services.

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

SECTION 7 Handling and storage

Safe handling	 Containers, even those that have been emptied, may contain explosive vapours. Do NOT cut, dhill, grind, weld or performs similar operations on or near containers. 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 <= 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling discharging or handling operations. Wait 2 minutes after tank filling (for tanks such as those on randoles. Wait 30 minutes after tank filling (for large storage tanks) before opening hatches or manholes. Vait 30 minutes after tank filling of lor large storage tanks) before opening hatches or manholes. vait 30 minutes after tank filling of lor large storage tanks) before opening hatches or with proper grounding and bonding, this material can still accumulate an electrostatic discharge and ignition of flammable air-vapour mixtures can occur. Be avare of handling operations that may give ise to additional hazards that result from the accumulation of static charges. These include but are ontol limited to pumpin (especially turbulent flow), mixing, filtering, splash filling, cleaning and filling of tanks and containers, sampling, switch loading, gauging, vacuum truck operations, and mechanical movements. These activities may lead to static discharge (= 1 m/s). Notil Stahs filling, bo NOT use compressed air for filling, discharging, or handling operations Avoid al personal contact, including inhalation. Wear protective dothing pumping in order to avoid generation of electrostatic discharge (= 1 m/s). Notid Stahs filling,<
Other information	 Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions. Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, 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, including any incompatibilities

Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	alkanes, C11-13-iso-	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	(om) - Sampled by a method that does not collect vapour
New Zealand Workplace Exposure Standards (WES)	naphthalene	Naphthalene	0.5 ppm / 2.6 mg/m3	10 mg/m3 / 2 ppm	Not Available	carcinogen category 2 - Suspected human carcinogen (skin) - Skin absorption

Emergency Limits

Ingredient	TEEL-1	TEEL-2		TEEL-3	
alkanes, C11-13-iso-	350 mg/m3	1,800 mg/m3		40,000 mg/m3	
naphthalene	15 ppm	83 ppm		500 ppm	
Ingredient	Original IDLH		Revised IDLH		
alkanes, C11-13-iso-	2,500 mg/m3	2,500 mg/m3		Not Available	
solvent naphtha petroleum, heavy aromatic	Not Available		Not Available		
naphthalene	250 ppm		Not Available		

Exposure controls

	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.				
	Local exhaust ventilation usually required. If risk of overexpose protection. Supplied-air type respirator may be required in sp An approved self contained breathing apparatus (SCBA) may Provide adequate ventilation in warehouse or closed storage velocities which, in turn, determine the "capture velocities" of	ecial circumstances. Correct fit is essential to ensure adequ be required in some situations. area. Air contaminants generated in the workplace possess	ate protection. s varying "escape"		
	Type of Contaminant:		Air Speed:		
	solvent, vapours, degreasing etc., evaporating from tank (in	n still air).	0.25-0.5 m/s (50-100 f/min.)		
Appropriate engineering	aerosols, fumes from pouring operations, intermittent conta drift, plating acid fumes, pickling (released at low velocity ir		0.5-1 m/s (100-200 f/min.)		
controls	direct spray, spray painting in shallow booths, drum filling, or generation into zone of rapid air motion)	conveyer loading, crusher dusts, gas discharge (active	1-2.5 m/s (200-500 f/min.)		
	grinding, abrasive blasting, tumbling, high speed wheel ger very high rapid air motion).	nerated dusts (released at high initial velocity into zone of	2.5-10 m/s (500-2000 f/min.)		
	Within each range the appropriate value depends on:				
	Lower end of the range	Upper end of the range			
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents			
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity			
	3: Intermittent, low production.	3: High production, heavy use			
	 3: Intermittent, low production. 4: Large hood or large air mass in motion Simple theory shows that air velocity falls rapidly with distance with the square of distance from the extraction point (in simple 	4: Small hood-local control only e away from the opening of a simple extraction pipe. Velocit			
	4: Large hood or large air mass in motion Simple theory shows that air velocity falls rapidly with distance	4: Small hood-local control only e away from the opening of a simple extraction pipe. Velocil e cases). Therefore the air speed at the extraction point sho g source. The air velocity at the extraction fan, for example, n a tank 2 meters distant from the extraction point. Other me	ould be adjusted, , should be a minimum o echanical considerations		
Individual protection neasures, such as personal protective equipment	4: Large hood or large air mass in motion Simple theory shows that air velocity falls rapidly with distance with the square of distance from the extraction point (in simpl accordingly, after reference to distance from the contaminatir 1-2 m/s (200-400 f/min) for extraction of solvents generated is producing performance deficits within the extraction apparatu	4: Small hood-local control only e away from the opening of a simple extraction pipe. Velocil e cases). Therefore the air speed at the extraction point sho g source. The air velocity at the extraction fan, for example, n a tank 2 meters distant from the extraction point. Other me	ould be adjusted, , should be a minimum o echanical considerations		
neasures, such as personal	 4: Large hood or large air mass in motion Simple theory shows that air velocity falls rapidly with distance with the square of distance from the extraction point (in simpl accordingly, after reference to distance from the contaminatin 1-2 m/s (200-400 f/min) for extraction of solvents generated in producing performance deficits within the extraction apparatumore when extraction systems are installed or used. Image: A start of the extraction of solvents generated in producing performance deficits within the extraction apparatumore when extraction systems are installed or used. Image: A start of the extraction of solvents generated in producing performance deficits within the extraction apparatumore when extraction systems are installed or used. Image: A start of the extraction of the extraction of the extraction of the extraction of the class of chemicals in use and an aremove contact lens as soon as practicable. Lens should be readily a remove land suitable equipment should be readily a remove contact lens as soon as practicable. 	4: Small hood-local control only e away from the opening of a simple extraction pipe. Velocil e cases). Therefore the air speed at the extraction point sho g source. The air velocity at the extraction fan, for example, n a tank 2 meters distant from the extraction point. Other me	vuld be adjusted, should be a minimum o echanical considerations ied by factors of 10 or v document, describing ew of lens absorption should be trained in tion immediately and ens should be removed in		
neasures, such as personal protective equipment	 4: Large hood or large air mass in motion Simple theory shows that air velocity falls rapidly with distance with the square of distance from the extraction point (in simpl accordingly, after reference to distance from the contaminatin 1-2 m/s (200-400 f/min) for extraction of solvents generated is producing performance deficits within the extraction apparatumore when extraction systems are installed or used. Work of the extraction of solvents generated is producing performance deficits within the extraction apparatumore when extraction systems are installed or used. Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact I the wearing of lenses or restrictions on use, should be crading a remove contact lens as soon as practicable. Lens should a clean environment only after workers have washed hard a clean envi	4: Small hood-local control only e away from the opening of a simple extraction pipe. Velocit e cases). Therefore the air speed at the extraction point sho g source. The air velocity at the extraction fan, for example, n a tank 2 meters distant from the extraction point. Other me s, make it essential that theoretical air velocities are multipli enses may absorb and concentrate irritants. A written policy eated for each workplace or task. This should include a revi cocount of injury experience. Medical and first-aid personnel vailable. In the event of chemical exposure, begin eye irriga be removed at the first signs of eye redness or irritation - le	vuld be adjusted, should be a minimum o echanical considerations ied by factors of 10 or v document, describing ew of lens absorption should be trained in tion immediately and ens should be removed in		

Body protection	 dexterity Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.1.0 or national equivalent) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.1.0 or national equivalent) is recommended. Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are rated as: Excellent when breakthrough time > 400 min Good when breakthrough time > 20 min For when glove material degrades For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended. It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times. Glove thickness may also vary depending on the glove anaufacturer, the glove the task. Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example: Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of. Thicker gloves (down to 0.1 mm or nee) may be required where a high
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Eye 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:

2740 Motorbike 4T Fuel System Cleaner

Material	СРІ
TEFLON	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

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.

Respiratory protection

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 Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
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 degC)

- 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 Light yellow clear liquid; not miscible with water. Physical state Liquid Relative density (Water = 1) 0.765 Partition coefficient n-octanol Odour Not Available Not Available / water Odour threshold Not Available Auto-ignition temperature (°C) Not Available Decomposition Not Available pH (as supplied) Not Applicable temperature (°C)

Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	<7
Initial boiling point and boiling range (°C)	145	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	>61	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Combustible.	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	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	>1	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

Simation on textoological of			
Inhaled	There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal. 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. 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	Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733) Accidental ingestion of the material may be damaging to the health of the individual.		
Skin Contact	Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. Open cuts, abraded or irritated skin should not be exposed to this material 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 person	ns.	
Chronic	Constant or exposure over long periods to mixed hydrocarbons in and anaemia, and reduced liver and kidney function. Skin exposu	ase the incidence of respiratory tumours and may aggravate chronic	
2740 Motorbike 4T Fuel	ΤΟΧΙΟΙΤΥ	IRRITATION	
System Cleaner	Not Available	Not Available	
	ΤΟΧΙΟΙΤΥ	IRRITATION	
	Dermal (rabbit) LD50: >1900 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]	
alkanes, C11-13-iso-	Inhalation(Rat) LC50: >4.42 mg/L4h ^[1]	Skin: adverse effect observed (irritating) ^[1]	
	Oral (Rat) LD50: >4500 mg/kg ^[1]		
	тохісіту	IRRITATION	
solvent naphtha petroleum,	Dermal (rabbit) LD50: >2000 mg/kg ^[2]	Eye (rabbit): Irritating [PETROFIN]	
heavy aromatic	Inhalation(Rat) LC50: >0.003 mg/L4h ^[1]	Eye: no adverse effect observed (not irritating) ^[1]	
	Oral (Rat) LD50: >2000 mg/kg ^[1]	Skin: adverse effect observed (irritating) ^[1]	

	ΤΟΧΙΟΙΤΥ	IRRITATION		
	dermal (rat) LD50: >2500 mg/kg ^[2]	Eye (rabbit): 10	0 mg - mild	
naphthalene	Inhalation(Rat) LC50: >0.4 mg/l4h ^[1]	Skin (rabbit):49	5 mg (open) - mild	
	Oral (Rat) LD50: 490 mg/kg ^[2]			
Legend:	1. Value obtained from Europe ECHA Registered Sub specified data extracted from RTECS - Register of To	•	ined from manufacturer's SDS. Unless otherwise	
ALKANES, C11-13-ISO-	for C10-12-isoparaffins: The safety of isoparaffins as used in cosmetic produc These ingredients function mostly as solvents and als has reviewed relevant animal and clinical data and co The CIR Expert Panel noted that most of the available exposure data that were available, suggested mild oc phototoxicity. No significant toxicity was identified in o developmental toxicity, or carcinogenicity.Nephrotoxic mechanism for isoparaffin-induced nephrotoxicity/ren studies. Humans lack this protein and, thus, the Pane to humans.This view was consistent with the US EPA exposure or a reference concentration for chronic inhi- designed to only investigate the endpoints specific to evidence to assess the carcinogenic potential of isood this compound. However, the CIR Expert Panel noted petrolatum (15% in isooctane) to mice and also found as used in cosmetics. The potential adverse effects of inhaled aerosols depu and their site of deposition within the respiratory syste mm range and the mean particle diameter in a typical <10 mm are respirable. After reviewing the positive ac can be used safely in hair sprays, because the produc International Journal of Toxicology 31 (Supplement 3)	to function as emollients in the 0001% included that these ingredients are sain a data related to oral or inhalation exp ular irritation, mild-to-severe irritation, ral or inhalation exposure studies of ti ity, however, was a concern. The Exp al tubule cell proliferation in male rats a greed that findings associated with position that it was not possible for the alation exposure to isooctane becaus a2u-globulin-associated nephropathy tane, based on the absence of huma at that no significant tumor incidence w no evidence of any concern regardin end on the specific chemical species, em. In practice, aerosols should have aerosol spray has been reported as - sute and subchronic inhalation toxicity ct particle size is not respirable.	to 90% concentration range. The CIR Expert Panel fe in the present practices of use and concentration osure to isoparaffins, but the dermal and ocular no sensitization or photosensitization, and no he following end points: genotoxicity, reproductive an ert Panel noted the involvement of a2u-globulin in th of various strains in oral and inhalation exposure the a2u-globulin protein in male rats were not releva- ie agency to derive an oral RfD for chronic oral e the available studies were limited, in that they were. The EPA also concluded that there was inadequate n epidemiological studies and chronic bioassays on as found following life-time dermal application of g carcinogenic potential from exposure to isoparaffin the concentration and the duration of the exposure at least 99% of their particle diameters in the 10 to 1- -38 mm. Particles with an aerodynamic diameter of	
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.			
NAPHTHALENE	Animal testing shows that exposure to gasoline over a lifetime can cause kidney cancer, but the relevance in humans is questionable. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produc conjunctivitis. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production vesicles, scaling and thickening of the skin.			
	WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.			
ALKANES, C11-13-ISO- & 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.			
Acute Toxicity	×	Carcinogenicity	✓	
Skin Irritation/Corrosion	×	Reproductivity	×	
Serious Eye Damage/Irritation	¥	STOT - Single Exposure	×	
Respiratory or Skin	× STOT - Repeated Exposure ×			
sensitisation				

< – Data available to make classification

SECTION 12 Ecological information

2740 Motorbike 4T Fuel System Cleaner	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
alkanes, C11-13-iso-	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50(ECx)	48h	Crustacea	>0.002mg/l	2

	EC50	96h	Algae or other aquatic plants	64mg/l	2
	EC50	48h	Crustacea	>0.002mg	/l 2
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50(ECx)	48h	Crustacea	0.95mg/	1
	EC50	72h	Algae or other aquatic plants	<1mg/l	1
solvent naphtha petroleum, heavy aromatic	LC50	96h	Fish	2-5mg/l	Not Availabl
	EC50	96h	Algae or other aquatic plants	11.7mg/	2
	EC50	48h	Crustacea	0.95mg/	1
	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1344h	Fish	23-146	7
	EC50(ECx)	0.05h	Crustacea	<0.000001mg	/I 4
naphthalene	EC50	72h	Algae or other aquatic plants	ca.0.4mg/l	1
	EC50	48h	Crustacea	1.09-3.4mg/l	4
	LC50	96h	Fish	0.213mg/l	4
Legend:	Ecotox databas		CHA Registered Substances - Ecotoxicological Informa Aquatic Hazard Assessment Data 6. NITE (Japan) - I		

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. **DO NOT** discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
naphthalene	HIGH (Half-life = 258 days)	LOW (Half-life = 1.23 days)
Bioaccumulative potential		
Ingredient	Bioaccumulation	

Ingredient	Bioaccumulation
solvent naphtha petroleum, heavy aromatic	LOW (BCF = 159)
naphthalene	HIGH (BCF = 18000)

Mobility in soil

Ingredient	Mobility
naphthalene	LOW (KOC = 1837)

SECTION 13 Disposal considerations

Waste treatment methods	
Product / Packaging disposal	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 • Reuse • 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. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. • 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 sewer 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.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous. DO NOT deposit the hazardous substance into or onto a landfill or a sewage facility.

Burning the hazardous substance must happen under controlled conditions with no person or place exposed to

(1) a blast overpressure of more than 9 kPa; or

(2) an unsafe level of heat radiation.

The disposed hazardous substance must not come into contact with class 1 or 5 substances.

SECTION 14 Transport information

Labels Required	
Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (UN): 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	Group
alkanes, C11-13-iso-	Not Available
solvent naphtha petroleum, heavy aromatic	Not Available
naphthalene	Not Available

Transport in bulk in accordance with the IGC Code

Product name	Ship Type
alkanes, C11-13-iso-	Not Available
solvent naphtha petroleum, heavy aromatic	Not Available
naphthalene	Not Available

SECTION 15 Regulatory information

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

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002581	Fuel Additives Combustible Group Standard 2020

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

alkanes, C11-13-iso- is found on the following regulatory lists Chemical Footprint Project - Chemicals of High Concern List International Agency for Research on Cancer (IARC) - Agents Classified by the IARC of Chemicals

Monographs - Not Classified as Carcinogenic New Zealand Approved Hazardous Substances with controls

solvent naphtha petroleum, heavy aromatic is found on the following regulatory lists International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

naphthalene is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

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

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals New Zealand Inventory of Chemicals (NZIoC) New Zealand Workplace Exposure Standards (WES)

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Hazardous Substances and New Organisms (HSNO) \mbox{Act} - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantities
Not Applicable	Not Applicable

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
3.1C or 3.1D				10 L

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (alkanes, C11-13-iso-; solvent naphtha petroleum, heavy aromatic; naphthalene)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - FBEPH	Yes	
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	10/04/2023
Initial Date	10/04/2023

Other information

Ingredients with multiple cas numbers

Name	CAS No
solvent naphtha petroleum, heavy aromatic	64742-94-5, 1189173-42-9

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 TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.