

LIQUI MOLY Australia Pty Limited

Chemwatch: 47-8925

Version No: 7.1.17.10

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

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

Prod	luct	lden	tifier

Product name	2769 DIESEL CLEAN & BOOST 1L
Chemical Name	Not Applicable
Synonyms	Item No.2769
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	Cleaner.

Details of the supplier of the safety data sheet

Registered company name	LIQUI MOLY Australia Pty Limited
Address	Suite 106, 26-32 Pirrama Road Pyrmont NSW 2009 Australia
Telephone	1300 318 961
Fax	Not Available
Website	www.liqui-moly.com.au
Email	Not Available

Emergency telephone number

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Association / Organisation	LIQUI MOLY Australia Pty Limited
Emergency telephone numbers	13 11 26 (Poisons Information Centre)
Other emergency telephone numbers	Not Available

SECTION 2 Hazards identification

Classification of the substance or mixture

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

COMBUSTIBLE LIQUID, regulated for storage purposes only

ChemWatch Hazard Ratings

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

Poisons Schedule	S5
Classification ^[1]	Aspiration Hazard Category 1, Serious Eye Damage/Eye Irritation Category 2B, Hazardous to the Aquatic Environment Long-Term Hazard Category 2, Flammable Liquids Category 4
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Label elements

Chemwatch Hazard Alert Code: 2

Issue Date: 01/11/2019 Print Date: 16/09/2021 S.GHS.AUS.EN

Signal word Danger

Hazard statement(s)

H304	May be fatal if swallowed and enters airways.
H320	Causes eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H227	Combustible liquid.

Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273	Avoid release to the environment.
P280	Wear protective gloves and protective clothing.
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.
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.
P391	Collect spillage.

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.	60-80	naphtha petroleum, heavy, hydrotreated
27247-96-7	5-15	2-ethylhexyl nitrate
104-76-7	1-5	2-ethylhexanol
Legend:	Legend: 1. Classified by Chernwatch; 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 and lower lids. 		

Eye Contact	 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, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
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.

Continued...

2769 DIESEL CLEAN & BOOST 1L

- 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 abauld be attablished in abujuth sumptomatic activate to the hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors about the attablished in abujuth sumptomatic activate to the hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors at the hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors at the hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors at the hydrocarbon ingestion at the hydro
- 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.

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
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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) nitrogen oxides (NOX) other pyrolysis products typical of burning organic material. 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

methodo and material for containing the	
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.

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 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, 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 <= 7 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 sonking, naked lights or ignition sources. Avoid contact with incompatible materials. When handling, DO NOT et al, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with scap and water after handling. Work clothes should be laundered separately. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be requilarly checked against established exposure standards to ensure safe working conditions.
Other information	 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. Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

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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, bases and strong reducing agents.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA							
Source	Ingredient	Material name	TWA	STEL	Peak	Notes	
Australia Exposure Standards	naphtha petroleum, heavy, hydrotreated	Oil mist, refined mineral	5 mg/m3	Not Available	Not Available	Not Available	
Emergency Limits							
Ingredient	TEEL-1	TEEL-2		TEEL-3			
naphtha petroleum, heavy, hydrotreated	350 mg/m3	1,800 mg/m3	1,800 mg/m3 4		,000 mg/m3		
2-ethylhexanol	Not Available	Not Available		Not Availa	Not Available		
Ingredient	Original IDLH		Revised IDLH				
naphtha petroleum, heavy, hydrotreated	2,500 mg/m3		Not Available				
2-ethylhexyl nitrate	Not Available		Not Available				
2-ethylhexanol	Not Available		Not Available				
Occupational Exposure Bandin	ıg						
Ingredient	Occupational Exposure Band Rating		Occupational Exposure Band Limit				
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a						

range of exposure concentrations that are expected to protect worker health.

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit				
2-ethylhexanol	E					
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.					
Exposure controls						
	Engineering controls are used to remove a hazard or place a be highly effective in protecting workers and will typically be in The basic types of engineering controls are: Process controls which involve changing the way a job activit Enclosure and/or isolation of emission source which keeps a "adds" and "removes" air in the work environment. Ventilation ventilation system must match the particular process and che Employers may need to use multiple types of controls to preve General exhaust is adequate under normal operating condition overexposure exists, wear approved respirator. Supplied-air the ensure adequate protection. Provide adequate ventilation in workplace possess varying "escape" velocities which, in turn remove the contaminant.	ndependent of worker interactions to provide this high level y or process is done to reduce the risk. selected hazard "physically" away from the worker and ven can remove or dilute an air contaminant if designed proper mical or contaminant in use. ent employee overexposure. ons. Local exhaust ventilation may be required in special cir ype respirator may be required in special circumstances. C varehouses and enclosed storage areas. Air contaminants	of protection. tilation that strategically ly. The design of a cumstances. If risk of prrect fit is essential to generated in the			
	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 in		0.5-1 m/s (100-200 f/min.)			
controls	direct spray, spray painting in shallow booths, drum filling, 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) Within each range the appropriate value depends on:	nerated dusts (released at high initial velocity into zone of	2.5-10 m/s (500-2000 f/min.)			
	Lower end of the range	Upper end of the range				
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents				
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity				
	3: Intermittent, low production.	3: High production, heavy use				
	4: Large hood or large air mass in motion	4: Small hood-local control only				
	Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.					
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. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent] 					
Skin protection	See Hand protection below					
Hands/feet protection	 Wear chemical protection both 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. Application of a non-perfumed moisturiser is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: frequency and duration of contact, chemical resistance of glove material, glove thickness and 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 2161.10.1 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 2161.10.1 endivalent) is recommended. 					

Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term

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	 use. Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are rated as: Excellent when breakthrough time > 480 min Good when breakthrough time > 20 min Fair when breakthrough time < 20 min Poor 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 manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task. Note: Depending on the activity being conducted, gloves of varying thickness may be required during charactery 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 (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential Gloves more on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.
Body protection	See Other protection below
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 *computergenerated* selection:

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Material	СРІ
BUTYL	A
NEOPRENE	A
PVA	А
VITON	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 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	-	A-PAPR-AUS / Class 1
up to 50 x ES	-	A-AUS / Class 1	-
up to 100 x ES	-	A-2	A-PAPR-2 ^

^ - 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 Clear amber liquid with characteristic odour; not miscible with water.

Appearance			
Physical state	Liquid	Relative density (Water = 1)	0.834
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	<7
Initial boiling point and boiling range (°C)	180	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	63	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Combustible.	Oxidising properties	Not Available

Upper Explosive Limit (%)	7.0	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	0.6	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (%)	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

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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. Inhalation hazard is increased at higher temperatures. 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 depression and may be fatal.		
Ingestion	Swallowing of the liquid may cause aspiration into the lung (ICSC13733) Accidental ingestion of the material may be damaging to the	gs with the risk of chemical pneumonitis; serious consequences may result. he health of the individual.	
Skin Contact	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. 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	There is some evidence to suggest that this material can o	cause eye irritation and damage in some persons.	
Chronic	55r33?5542 Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]		
2769 DIESEL CLEAN & BOOST 1L	TOXICITY Not Available	IRRITATION Not Available	
	тохісіту	IRRITATION	
naphtha petroleum, heavy,	Dermal (rabbit) LD50: >1900 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]	
hydrotreated	Inhalation(Rat) LC50; >4.42 mg/L4h ^[1]	Skin: adverse effect observed (irritating) ^[1]	
	Oral(Rat) LD50; >4500 mg/kg ^[1]		
	TOXICITY	IRRITATION	
	TOXICITY Dermal (rabbit) LD50: >4800 mg/kg ^[2]	IRRITATION Eye: no adverse effect observed (not irritating) ^[1]	
2-ethylhexyl nitrate			
2-ethylhexyl nitrate	Dermal (rabbit) LD50: >4800 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]	
2-ethylhexyl nitrate	Dermal (rabbit) LD50: >4800 mg/kg ^[2] Inhalation(Rat) LC50; >1.15 mg/l4h ^[2]	Eye: no adverse effect observed (not irritating) ^[1]	
2-ethylhexyl nitrate	Dermal (rabbit) LD50: >4800 mg/kg ^[2] Inhalation(Rat) LC50; >1.15 mg/l4h ^[2] Oral(Rat) LD50; >2000 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1]	
2-ethylhexyl nitrate	Dermal (rabbit) LD50: >4800 mg/kg ^[2] Inhalation(Rat) LC50; >1.15 mg/l4h ^[2] Oral(Rat) LD50; >2000 mg/kg ^[2] TOXICITY	Eye: no adverse effect observed (not irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1] IRRITATION	
2-ethylhexyl nitrate	Dermal (rabbit) LD50: >4800 mg/kg ^[2] Inhalation(Rat) LC50; >1.15 mg/l4h ^[2] Oral(Rat) LD50; >2000 mg/kg ^[2] TOXICITY Dermal (rabbit) LD50: 1970 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1] IRRITATION Eye (rabbit): 20 mg/24h - moderate	
	Dermal (rabbit) LD50: >4800 mg/kg ^[2] Inhalation(Rat) LC50; >1.15 mg/l4h ^[2] Oral(Rat) LD50; >2000 mg/kg ^[2] TOXICITY Dermal (rabbit) LD50: 1970 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1] IRRITATION Eye (rabbit): 20 mg/24h - moderate Eye (rabbit): 4.17 mg - SEVERE Eye: adverse effect observed (irritating) ^[1] Skin (rabbit): 415 mg (open)-mild	
	Dermal (rabbit) LD50: >4800 mg/kg ^[2] Inhalation(Rat) LC50; >1.15 mg/l4h ^[2] Oral(Rat) LD50; >2000 mg/kg ^[2] TOXICITY Dermal (rabbit) LD50: 1970 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[1] IRRITATION Eye (rabbit): 20 mg/24h - moderate Eye (rabbit): 4.17 mg - SEVERE Eye: adverse effect observed (irritating) ^[1]	

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise

	specified data extracted from RTECS - Register of To:	xic Effect of chemical Substances	
NAPHTHA PETROLEUM, HEAVY, HYDROTREATED	Animal studies indicate that normal, branched and cyc n-paraffins is inversely proportional to the carbon chai be present in mineral oil, n-paraffins may be absorbed The major classes of hydrocarbons are well absorbed hydrocarbons are ingested in association with fats in t gut lymph, but most hydrocarbons partly separate from determining the proportion of hydrocarbon that becom or the liver. For petroleum: This product contains benzene, which compounds which are toxic to the nervous system. Th to hearing loss. This product contains ethyl benzene a Cancer-causing potential: Animal testing shows inhalit be relevant in humans. Mutation-causing potential: Most studies involving gas all recent studies in living human subjects (such as in Reproductive toxicity: Animal studies show that high c weight and developmental toxicity to the nervous syste Human effects: Prolonged or repeated contact may ca susceptible to irritation and penetration by other mater Animal testing shows that exposure to gasoline over a	n length, with little absorption above 0 I to a greater extent than iso- or cyclo- into the gastrointestinal tract in variou he diet. Some hydrocarbons may app n fats and undergo metabolism in the les available to be deposited unchang can cause acute myeloid leukaemia, is product contains toluene, and anim and naphthalene, from which animal te ng petroleum causes tumours of the li soline have returned negative results in petrol service station attendants). oncentrations of toluene (>0.1%) can em of the foetus. Other studies show use defatting of the skin which can le rials.	C30. With respect to the carbon chain lengths likely to -paraffins. us species. In many cases, the hydrophobic bear unchanged as in the lipoprotein particles in the gut cell. The gut cell may play a major role in ged in peripheral tissues such as in the body fat stores and n-hexane, which can be metabolized to hal studies suggest high concentrations of toluene lead esting shows evidence of tumour formation. iver and kidney; these are however not considered to regarding the potential to cause mutations, including cause developmental effects such as lower birth no adverse effects on the foetus. and to skin inflammation and may make the skin more
2-ETHYLHEXYL NITRATE	Chemical with the aliphatic nitro group (-C-NO2) have Program (NTP, U.S. Dept Health and Human Services		subgroups recognised by the National Toxicological
2-ETHYLHEXANOL	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 to a irritants may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce 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. Alkyl alcohols of chain length C6-13 are absorbed from skin, when inhaled or swallowed but show evidence of little harm. They are broken dowr and rapidly excreted by the body. The Branched Chain Saturated Alcohol (BCSA) group of fragrance ingredients was evaluated for safety. The fifteen materials tested have low acute toxicity. Following repeated application, seven materials had low whole-body toxicity. In humans, no evidence of skin irritation was found at concentrations of 2-10%. Undiluted, 11 materials evaluated caused moderate to severe expiritation. As cur		
Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	×
Respiratory or Skin	×	STOT - Repeated Exposure	×
sensitisation	<u>^</u>		^

 \mathbf{X} – Data either not available or does not fill the criteria for classification Data available to make classification

SECTION 12 Ecological information

Т	oxi	ici	ty

	Endpoint	Test Duration (hr)	Species	Value	Source
2769 DIESEL CLEAN & Not BOOST 1L Available	Not Available	Not Available	Not Available	Not Available	
	Endpoint	Test Duration (hr)	Species	Value	Source
hydrotreated EC50	EC50(ECx)	96h	Algae or other aquatic plants	64mg/l	2
	EC50	96h	Algae or other aquatic plants	64mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Sourc
	EC50	72h	Algae or other aquatic plants	1.57mg/l	2
2-ethylhexyl nitrate	LC50	96h	Fish	2mg/l	2
	EC50	48h	Crustacea	>12.6mg/l	2
EC1	EC10(ECx)	72h	Algae or other aquatic plants	0.76mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
2-ethylhexanol	EC50	72h	Algae or other aquatic plants	11.5mg/l	1

	EC50	48h	Crustacea	39mg/l	1
	LC50	96h	Fish	>7.5mg/l	2
	EC10(ECx)	72h	Algae or other aquatic plants	3.2mg/l	1
Legend:	V3.12 (QSAR) -	, , ,	Substances - Ecotoxicological Information - Aquatic x database - Aquatic Toxicity Data 5. ECETOC Aqua concentration Data 8. Vendor Data		

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

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

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

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2-ethylhexanol	LOW	LOW
Bioaccumulative potential		
Ingredient	Bioaccumulation	
2-ethylhexanol	LOW (BCF = 27)	
Mobility in soil		
Ingredient	Mobility	

2-ethylhexanol	LOW (KOC = 26.01)

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:

SECTION 14 Transport information

Labels Required	
	COMBUSTIBLE LIQUID, regulated for storage purposes only
Marine Pollutant	
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	Group
naphtha petroleum, heavy, hydrotreated	Not Available
2-ethylhexyl nitrate	Not Available

Product name	Group	
2-ethylhexanol	Not Available	
ransport in bulk in accorda	nce with the ICG Code	
Product name	Ship Type	
naphtha petroleum, heavy, hydrotreated	Not Available	
2-ethylhexyl nitrate	Not Available	
2-ethylhexanol	Not Available	

SECTION 15 Regulatory information

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

naphtha petroleum, heavy, hydrotreated 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
2-ethylhexyl nitrate 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 Monographs

2-ethylhexanol is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

National Inventory Status

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

Australian Inventory of Industrial Chemicals (AIIC)

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (naphtha petroleum, heavy, hydrotreated; 2-ethylhexyl nitrate; 2-ethylhexanol)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	No (naphtha petroleum, heavy, hydrotreated)	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	No (2-ethylhexyl nitrate)	
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	01/11/2019
Initial Date	16/02/2015

SDS Version Summary

Version	Date of Update	Sections Updated
6.1.1.1	05/11/2015	Acute Health (inhaled), Acute Health (swallowed), Chronic Health, Classification, Disposal, Handling Procedure, Ingredients
7.1.1.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification
7.1.2.1	26/04/2021	Regulation Change
7.1.3.1	03/05/2021	Regulation Change
7.1.4.1	06/05/2021	Regulation Change
7.1.5.1	10/05/2021	Regulation Change
7.1.5.2	30/05/2021	Template Change
7.1.5.3	04/06/2021	Template Change
7.1.5.4	05/06/2021	Template Change
7.1.6.4	07/06/2021	Regulation Change
7.1.6.5	09/06/2021	Template Change
7.1.6.6	11/06/2021	Template Change

Version	Date of Update	Sections Updated
7.1.6.7	15/06/2021	Template Change
7.1.7.7	17/06/2021	Regulation Change
7.1.8.7	21/06/2021	Regulation Change
7.1.8.8	05/07/2021	Template Change
7.1.9.8	14/07/2021	Regulation Change
7.1.10.8	19/07/2021	Regulation Change
7.1.10.9	01/08/2021	Template Change
7.1.11.9	02/08/2021	Regulation Change
7.1.12.9	05/08/2021	Regulation Change
7.1.13.9	09/08/2021	Regulation Change
7.1.14.9	23/08/2021	Regulation Change
7.1.15.9	26/08/2021	Regulation Change
7.1.15.10	29/08/2021	Template Change
7.1.16.10	30/08/2021	Regulation Change
7.1.17.10	06/09/2021	Regulation Change

Other information

Ingredients with multiple cas numbers

Name	CAS No	
naphtha petroleum, heavy, hydrotreated	64742-48-9., 101795-02-2.	
2-ethylhexanol	104-76-7, 111675-57-1, 68526-83-0, 68526-84-1	

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.

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