



PAROIL EXTRA

Atlas Copco Power Technique , Power Tools Distribution n.v.

Chemwatch: 5274-96

Version No: 6.1.1.1

Safety Data Sheet (Conforms to Regulation (EU) No 2015/830)

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L.REACH.BEL.EN

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

1.1. Product Identifier

Product name	PAROIL EXTRA
Synonyms	Not Available
Other means of identification	Not Available

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

Relevant identified uses	Engine oil.
Uses advised against	Not Applicable

1.3. Details of the supplier of the safety data sheet

Registered company name	Atlas Copco Power Technique , Power Tools Distribution n.v.
Address	Industrielaan 40 Hoeselt 3730 Belgium
Telephone	+32 3 870 2111
Fax	Not Available
Website	www.atlascopco.com
Email	info.lubricants.pts@atlascopco.com

1.4. Emergency telephone number

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	+32 2 700 63 06
Other emergency telephone numbers	+32 800 81 450

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

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments [1]	Not Applicable
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2.2. Label elements

Hazard pictogram(s)	Not Applicable
Signal word	Not Applicable

PAROIL EXTRA

Hazard statement(s)

Not Applicable

Supplementary statement(s)

EUH210	Safety data sheet available on request.
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Precautionary statement(s) Prevention

Not Applicable

Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

2.3. Other hazards

dodecylphenol, branched	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)
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SECTION 3 Composition / information on ingredients

3.1. Substances

See 'Composition on ingredients' in Section 3.2

3.2. Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP] and amendments
1.72623-87-1. 2.276-738-4 3.649-483-00-5 4.01-2119474889-13-XXXX	50-70	<u>lubricating oils, petroleum C20-50, hydrotreated neutral</u>	Aspiration Hazard Category 1; H304 ^[1]
1.68037-01-4 2.500-183-1 3.Not Available 4.01-2119486452-34-XXXX	6.25-10	<u>1-decene homopolymer, hydrogenated</u>	Aspiration Hazard Category 1; H304 ^[1]
1.64742-65-0. 2.265-169-7 3.649-474-00-6 4.01-2119471299-27-XXXX	5-6.25	<u>paraffinic distillate, heavy, solvent-dewaxed (severe)</u>	Aspiration Hazard Category 1; H304 ^[1]
1.36878-20-3 2.253-249-4 3.Not Available 4.01-2119488911-28-XXXX	1-2	<u>nonylated diphenylamines</u>	Chronic Aquatic Hazard Category 4; H413 ^[1]
1.93819-94-4 2.298-577-9 3.Not Available 4.01-2119543726-33-XXXX	1-2	<u>zinc bis[O-(6-methylheptyl) & sec-butyl]dithiophosphate</u>	Skin Corrosion/Irritation Category 2, Serious Eye Damage Category 1, Chronic Aquatic Hazard Category 2; H315, H318, H411 ^[1]
1.121158-58-5 2.310-154-3 3.604-092-00-9 4.01-2119513207-49-XXXX	0.1-0.25	<u>dodecylphenol, branched</u>	Skin Corrosion/Irritation Category 1C, Reproductive Toxicity Category 1B, Acute Aquatic Hazard Category 1, Chronic Aquatic Hazard Category 1; H314, H360F, H410, H400 ^[1]
1.Not Available 2.Not Available 3.Not Available 4.Not Available	4-5	<u>mineral oil</u>	Not Applicable

Legend: 1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L; * EU IOELVs available

SECTION 4 First aid measures

4.1. Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ 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	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ 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	<ul style="list-style-type: none"> ▶ 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	<ul style="list-style-type: none"> ▶ 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.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

5.1. Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

5.2. 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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5.3. Advice for firefighters

Fire Fighting	<ul style="list-style-type: none"> ▶ 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.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▶ 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). <p>Combustion products include: carbon dioxide (CO₂) nitrogen oxides (NO_x) phosphorus oxides (PO_x) sulfur oxides (SO_x) other pyrolysis products typical of burning organic material.</p> <p>CARE: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.</p>

SECTION 6 Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	<p>Slippery when spilt.</p> <ul style="list-style-type: none"> ▶ 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.
Major Spills	<p>Slippery when spilt. Moderate hazard.</p> <ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves.

6.4. Reference to other sections

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

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> ▶ 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.
Fire and explosion protection	See section 5
Other information	<ul style="list-style-type: none"> ▶ Store in original containers. ▶ Keep containers securely sealed. ▶ No smoking, naked lights or ignition sources. ▶ Store in a cool, dry, well-ventilated area.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ Metal can or drum ▶ Packaging as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	<p>Avoid contamination of water, foodstuffs, feed or seed.</p> <p>CARE: Water in contact with heated material may cause foaming or a steam explosion with possible severe burns from wide scattering of hot material. Resultant overflow of containers may result in fire.</p> <ul style="list-style-type: none"> ▶ Avoid reaction with oxidising agents

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
lubricating oils, petroleum C20-50, hydrotreated neutral	<p>Dermal 0.97 mg/kg bw/day (Systemic, Chronic) Inhalation 2.73 mg/m³ (Systemic, Chronic) Inhalation 5.58 mg/m³ (Local, Chronic) <i>Oral 0.74 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 1.19 mg/m³ (Local, Chronic) *</i></p>	9.33 mg/kg food (Oral)
paraffinic distillate, heavy, solvent-dewaxed (severe)	<p>Dermal 0.97 mg/kg bw/day (Systemic, Chronic) Inhalation 2.73 mg/m³ (Systemic, Chronic) Inhalation 5.58 mg/m³ (Local, Chronic)</p>	9.33 mg/kg food (Oral)

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
	Oral 0.74 mg/kg bw/day (Systemic, Chronic) * Inhalation 1.19 mg/m ³ (Local, Chronic) *	
nonylated diphenylamines	Dermal 5 mg/kg bw/day (Systemic, Chronic) Dermal 2.5 mg/kg bw/day (Systemic, Chronic) * Oral 0.25 mg/kg bw/day (Systemic, Chronic) *	0.412 mg/L (Water (Fresh)) 0.041 mg/L (Water - Intermittent release) 1 mg/L (Water (Marine)) 1 mg/kg sediment dw (Sediment (Fresh Water)) 0.1 mg/kg sediment dw (Sediment (Marine))
zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate	Dermal 0.58 mg/kg bw/day (Systemic, Chronic) Inhalation 8.31 mg/m ³ (Systemic, Chronic) Dermal 0.29 mg/kg bw/day (Systemic, Chronic) * Inhalation 2.11 mg/m ³ (Systemic, Chronic) * Oral 0.24 mg/kg bw/day (Systemic, Chronic) *	4 µg/L (Water (Fresh)) 4.6 µg/L (Water - Intermittent release) 21 µg/L (Water (Marine)) 0.012 mg/kg sediment dw (Sediment (Fresh Water)) 0.001 mg/kg sediment dw (Sediment (Marine)) 0.005 mg/kg soil dw (Soil) 100 mg/L (STP) 10.67 mg/kg food (Oral)
dodecylphenol, branched	Dermal 0.25 mg/kg bw/day (Systemic, Chronic) Dermal 166 mg/kg bw/day (Systemic, Acute) Inhalation 44.18 mg/m ³ (Systemic, Acute) Dermal 0.075 mg/kg bw/day (Systemic, Chronic) * Inhalation 0.79 mg/m ³ (Systemic, Chronic) * Oral 0.075 mg/kg bw/day (Systemic, Chronic) * Dermal 50 mg/kg bw/day (Systemic, Acute) * Inhalation 13.26 mg/m ³ (Systemic, Acute) * Oral 1.26 mg/kg bw/day (Systemic, Acute) *	0.074 µg/L (Water (Fresh)) 0.007 µg/L (Water - Intermittent release) 0.37 µg/L (Water (Marine)) 0.226 mg/kg sediment dw (Sediment (Fresh Water)) 0.027 mg/kg sediment dw (Sediment (Marine)) 0.118 mg/kg soil dw (Soil) 100 mg/L (STP) 4 mg/kg food (Oral)

* Values for General Population

Occupational Exposure Limits (OEL)**INGREDIENT DATA**

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Belgium Occupational Exposure Limits	lubricating oils, petroleum C20-50, hydrotreated neutral	Huiles minérales (brouillards)	5 mg/m ³	10 mg/m ³	Not Available	Not Available
Belgium Occupational Exposure Limits	paraffinic distillate, heavy, solvent-dewaxed (severe)	Huiles minérales (brouillards)	5 mg/m ³	10 mg/m ³	Not Available	Not Available
Belgium Occupational Exposure Limits	mineral oil	Huiles minérales (brouillards)	5 mg/m ³	10 mg/m ³	Not Available	Not Available

Emergency Limits

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
lubricating oils, petroleum C20-50, hydrotreated neutral	Mineral oil, heavy or light; (paraffin oil; Deobase, deodorized; heavy paraffinic; heavy naphthenic); distillates; includes 64741-53-3, 64741-88-4, 8042-47-5, 8012-95-1; 64742-54-7	140 mg/m ³	1,500 mg/m ³	8,900 mg/m ³
1-decene homopolymer, hydrogenated	Decene, 1-, homopolymer, hydrogenated	30 mg/m ³	330 mg/m ³	2,000 mg/m ³
paraffinic distillate, heavy, solvent-dewaxed (severe)	Pump oil; (petroleum distillates, solvent de-waxed heavy paraffinic)	140 mg/m ³	1,500 mg/m ³	8,900 mg/m ³
dodecylphenol, branched	Dodecylphenol, 4- (mixture of isomers)	4.1 mg/m ³	45 mg/m ³	420 mg/m ³
mineral oil	Mineral oil, heavy or light; (paraffin oil; Deobase, deodorized; heavy paraffinic; heavy naphthenic); distillates; includes 64741-53-3, 64741-88-4, 8042-47-5, 8012-95-1; 64742-54-7	140 mg/m ³	1,500 mg/m ³	8,900 mg/m ³

Ingredient	Original IDLH	Revised IDLH
lubricating oils, petroleum C20-50, hydrotreated neutral	2,500 mg/m ³	Not Available
1-decene homopolymer, hydrogenated	Not Available	Not Available
paraffinic distillate, heavy, solvent-dewaxed (severe)	2,500 mg/m ³	Not Available
nonylated diphenylamines	Not Available	Not Available
zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
dodecylphenol, branched	Not Available	Not Available
mineral oil	2,500 mg/m ³	Not Available

Occupational Exposure Banding


Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate	E	≤ 0.01 mg/m ³
dodecylphenol, branched	E	≤ 0.1 ppm
Notes:	<i>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.</i>	

MATERIAL DATA

NOTE H: Special requirements exist in relation to classification and labelling of this substance. This note applies to certain coal- and oil -derived substances and to certain entries for groups of substances in Annex VI. European Union (EU) List of harmonised classification and labelling hazardous substances, Table 3.1, Annex VI, Regulation (EC) No 1272/2008 (CLP) - up to the latest ATP

NOTE L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. European Union (EU) List of harmonised classification and labelling hazardous substances, Table 3.1, Annex VI, Regulation (EC) No 1272/2008 (CLP) - up to the latest ATP

8.2. Exposure controls

8.2.1. Appropriate engineering controls	<p>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.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</p>
8.2.2. Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ▶ 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.
Skin protection	See Hand protection below
Hands/feet protection	<p>Wear general protective gloves, eg. light weight rubber gloves.</p> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care.</p>
Body protection	See Other protection below
Other protection	<p>No special equipment needed when handling small quantities.</p> <p>OTHERWISE:</p> <ul style="list-style-type: none"> ▶ Overalls. ▶ Barrier cream. ▶ Eyewash unit.

Respiratory protection

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

- ▶ 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

8.2.3. Environmental exposure controls

See section 12

SECTION 9 Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Viscous liquid; insoluble in water.		
Physical state	Liquid	Relative density (Water = 1)	0.855
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 Applicable
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	15 @ 100C (ASTM D445)
Initial boiling point and boiling range (°C)	>300 (ASTM D1120)	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	230 (ASTM D92)	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	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 Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

10.1.Reactivity	See section 7.2
10.2. Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 Toxicological information**11.1. Information on toxicological effects**

Inhaled	Inhalation hazard is increased at higher temperatures. Not normally a hazard due to non-volatile nature of product Inhalation of oil droplets/ aerosols may cause discomfort and may produce chemical pneumonitis.
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health).
Skin Contact	The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives . Open cuts, abraded or irritated skin should not be exposed to this material The material may accentuate any pre-existing dermatitis condition

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Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).	
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.	
PAROIL EXTRA	TOXICITY	IRRITATION
	Not Available	Not Available
lubricating oils, petroleum C20-50, hydrotreated neutral	Toxicity	Irritation
	Dermal (rabbit) LD50: >2000 mg/kg ^[2]	Eye:Not irritating ^[1]
	Inhalation (rat) LC50: >5.3 mg/l/4h ^[1]	Skin:Not irritating ^[1]
	Oral (rat) LD50: >5000 mg/kg ^[2]	
1-decene homopolymer, hydrogenated	TOXICITY	IRRITATION
	Inhalation (rat) LC50: 1.17 mg/l/1ht ^[2]	Eye*(rabbit):0-4/110.0-nonirritant Skin**(rabbit)-0.5/8.0-nonirritant
paraffinic distillate, heavy, solvent-dewaxed (severe)	Toxicity	Irritation
	Dermal (rabbit) LD50: >2000 mg/kg ^[2]	Eye:Not irritating ^[1]
	Inhalation (rat) LC50: >5.3 mg/l/4h ^[1]	Skin:Not irritating ^[1]
	Oral (rat) LD50: >5000 mg/kg ^[2]	
nonylated diphenylamines	Toxicity	Irritation
	Oral (rat) LD50: >5000 mg/kg ^[2]	Eye:Not irritating ^[1] Skin:Not irritating ^[1]
zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate	Toxicity	Irritation
	dermal (rat) LD50: >5000 mg/kg ^[2]	Eye:Corrosive ^[1]
	Oral (rat) LD50: >2000 mg/kg ^[2]	Skin:Moderate ^[1]
dodecylphenol, branched	TOXICITY	IRRITATION
	Oral (rat) LD50: <5000 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1] Skin: adverse effect observed (irritating) ^[1]
mineral oil	TOXICITY	IRRITATION
	Not Available	Not Available
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

1-DECENE HOMOPOLYMER, HYDROGENATED	<p>for poly-alpha-olefins (PAOs): PAOs are highly branched isoparaffinic chemicals produced by oligomerisation of 1-octene, 1-decene, and/or 1-dodecene. The crude polyalphaolefin mixture is then distilled into appropriate product fractions to meet specific viscosity specifications and hydrogenated. Read across data exist for health effects endpoints from the following similar <i>hydrogenated</i> long chain branched alkanes derived from a C8, C10, and/or C12 alpha olefins:</p> <ul style="list-style-type: none"> ▶ Decene homopolymer ▶ Decene/dodecene copolymer ▶ Octene/decene/dodecene copolymer ▶ Dodecene trimer <p>The data for these structural analogs demonstrated no evidence of health effects. In addition, there is evidence in the literature that alkanes with 30 or more carbon atoms are unlikely to be absorbed when administered orally. The physicochemical data suggest that it is unlikely that significant absorption will occur. (estimated) * Evidence of conjunctival changes ** No evidence of tissue damage [Inland Vacuum Industries] ^ US EPA HPV Challenge program October 2002</p>
PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE)	<p>Studies indicate that normal, branched and cyclic paraffins are absorbed from the mammalian 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 have been shown to be well absorbed by the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with dietary lipids. The dependence of</p>

	<p>hydrocarbon absorption on concomitant triglyceride digestion and absorption, is known as the "hydrocarbon continuum hypothesis", and asserts that a series of solubilising phases in the intestinal lumen, created by dietary triglycerides and their digestion products, afford hydrocarbons a route to the lipid phase of the intestinal absorptive cell (enterocyte) membrane.</p> <p>The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.</p>
NONYLATED DIPHENYLAMINES	<p>For substituted diphenylamines: Based upon reviewed data the physicochemical and toxicological properties of the substituted diphenylamines are similar and follow a regular pattern as a result of that structural similarity. Because of their powerful antioxidant properties, Substituted Diphenylamines, along with their common starting material, Diphenylamine, are regulated for use in several food-contact applications by the Food and Drug Administration as Indirect Food Additives under the following sections of the Code of Federal Regulations (CFR): Heating may generate vapors which can irritate the eyes and respiratory passages. Drying of skin and mucous membranes leading to irritation may be possible from prolonged or repeated contact. Overexposure to vapors from heating the product may cause and/or skin irritation and respiratory tract irritation with symptoms such as, but not limited to, dizziness and flu-like symptoms Acute toxicity: As a group these materials do not produce significant acute toxicity in mammals. All show a slight to very low order of toxicity following oral administration, with LD50 values ranging from >5000 to > 34,000 mg/kg.</p>
ZINC BIS[O-(6-METHYLHEPTYL & SEC-BUTYL)]DITHIOPHOSPHATE	<p>BB4 SDS (Infineum)</p> <p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. For dithiophosphate alkyl esters and their (zinc) salts: Acute toxicity: Dithiophosphate alkyl esters consist of a phosphorodithioic acid structure with alkyl ester substituent groups. The alkyl groups are saturated hydrocarbon chains that vary in length and extent of branching. While corrosive to tissue the esters demonstrate a low concern for acute systemic toxicity. Data on acute mammalian toxicity of zinc dialkyldithiophosphates in highly refined lubricant base oil also indicate a low concern for acute toxicity.</p>
DODECYLPHENOL, BRANCHED	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. for tetrapropenyl phenol and its derivatives. The chemical possesses properties indicating a potential hazard for human health (effects on fertility and developmental toxicity at doses that also cause maternal toxicity). Adequate screening-level data are available to characterize the human health hazard for the purposes of the OECD Cooperative Chemicals Assessment Programme SID Initial Assessment Profile (SIAM 22, 18-21 April 2006) for para-C12-alkylphenols (typically tetrapropenylphenol) Based on the toxicological findings presented in this review, para-C12-alkylphenols do not appear to meet the EU criteria for classification for acute toxicity by the oral and dermal routes of exposure, skin sensitisation, repeated dose toxicity or mutagenicity. No information is available relating to acute toxicity via inhalation exposure, and carcinogenicity. The following characteristics do suggest that the substance warrants consideration for classification: Irritation: para-C12-alkylphenols apparently meet the EU criteria for classification as a skin irritant and a severe eye irritant. Classification for corrosivity could be considered. Reproductive toxicity: • Fertility: The treatment-related effects on fertility, with supporting pathological changes indicating site of action, appear to meet the EU criteria for classification.</p>
MINERAL OIL	<p>Toxicity and Irritation data for petroleum-based mineral oils are related to chemical components and vary as does the composition and source of the original crude. A small but definite risk of occupational skin cancer occurs in workers exposed to persistent skin contamination by oils over a period of years. This risk has been attributed to the presence of certain polycyclic aromatic hydrocarbons (PAH) (typified by benz[a]pyrene). Petroleum oils which are solvent refined/extracted or severely hydrotreated, contain very low concentrations of both.</p>
LUBRICATING OILS, PETROLEUM C20-50, HYDROTREATED NEUTRAL & PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE)	<p>The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives; The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since:</p> <ul style="list-style-type: none"> · The adverse effects of these materials are associated with undesirable components, and · The levels of the undesirable components are inversely related to the degree of processing; · Distillate base oils receiving the same degree or extent of processing will have similar toxicities; · The potential toxicity of <i>residual base oils</i> is independent of the degree of processing the oil receives. · The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing. <p>The degree of refining influences the carcinogenic potential of the oils. Whereas mild acid / earth refining processes are inadequate to substantially reduce the carcinogenic potential of lubricant base oils, hydrotreatment and / or solvent extraction methods can yield oils with no carcinogenic potential. Unrefined and mildly refined distillate base oils contain the highest levels of undesirable components, have the largest</p>

	<p>variation of hydrocarbon molecules and have shown the highest potential carcinogenic and mutagenic activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components. In comparison to unrefined and mildly refined base oils, the highly and severely refined distillate base oils have a smaller range of hydrocarbon molecules and have demonstrated very low mammalian toxicity.</p> <p>Highly and Severely Refined Distillate Base Oils</p> <p>Acute toxicity: Multiple studies of the acute toxicity of highly & severely refined base oils have been reported. Irrespective of the crude source or the method or extent of processing, the oral LD50s have been observed to be >5 g/kg (bw) and the dermal LD50s have ranged from >2 to >5g/kg (bw). The LC50 for inhalation toxicity ranged from 2.18 mg/l to > 4 mg/l. When tested for skin and eye irritation, the materials have been reported as "non-irritating" to "moderately irritating"</p> <p>Testing in guinea pigs for sensitization has been negative</p> <p>Repeat dose toxicity: . Several studies have been conducted with these oils. The weight of evidence from all available data on highly & severely refined base oils support the presumption that a distillate base oil's toxicity is inversely related to the degree of processing it receives.</p>
PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE) & DODECYLPHENOL, BRANCHED	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✗	Reproductivity	✗
Serious Eye Damage/Irritation	✗	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification
 ✓ – Data available to make classification

SECTION 12 Ecological information

12.1. Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
PAROIL EXTRA	Not Available	Not Available	Not Available	Not Available	Not Available
lubricating oils, petroleum C20-50, hydrotreated neutral	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>10-mg/L	2
	NOEC	504	Crustacea	>1mg/L	1
1-decene homopolymer, hydrogenated	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
paraffinic distillate, heavy, solvent-dewaxed (severe)	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	>10-mg/L	2
	EC50	96	Algae or other aquatic plants	>1000mg/L	1
	NOEC	504	Crustacea	>1mg/L	1
nonylated diphenylamines	LC50	96	Fish	>100mg/L	2
	EC50	48	Crustacea	51mg/L	2
	EC50	72	Algae or other aquatic plants	>100mg/L	2
	EC0	24	Crustacea	22mg/L	2
	NOEC	96	Crustacea	<10mg/L	1
zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96	Fish	4.5mg/L	2
	EC50	48	Crustacea	5.4mg/L	2

PAROIL EXTRA

	EC50	72	Algae or other aquatic plants	2mg/L	2
	NOEC	504	Crustacea	0.4mg/L	2
dodecylphenol, branched	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96	Fish	3.2mg/L	2
	EC50	48	Crustacea	0.037mg/L	2
	EC50	72	Algae or other aquatic plants	0.15mg/L	2
	NOEC	504	Crustacea	0.004mg/L	2
mineral oil	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
1-decene homopolymer, hydrogenated	LOW	LOW
zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate	HIGH	HIGH
dodecylphenol, branched	HIGH	HIGH

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
1-decene homopolymer, hydrogenated	HIGH (LogKOW = 5.116)
zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate	HIGH (LogKOW = 6.0235)
dodecylphenol, branched	LOW (LogKOW = 7.4622)

12.4. Mobility in soil

Ingredient	Mobility
1-decene homopolymer, hydrogenated	LOW (KOC = 1724)
zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate	LOW (KOC = 3509)
dodecylphenol, branched	LOW (KOC = 382000)

12.5. Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not Applicable	Not Applicable	Not Applicable
PBT Criteria fulfilled?	Not Applicable	Not Applicable	Not Applicable

12.6. Other adverse effects

No data available

SECTION 13 Disposal considerations

13.1. 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.
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	<p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> ▸ Reduction ▸ Reuse ▸ Recycling ▸ Disposal (if all else fails) <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.</p> <ul style="list-style-type: none"> ▸ 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.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
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Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	Class	Not Applicable
	Subrisk	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Hazard identification (Kemler)	Not Applicable
	Classification code	Not Applicable
	Hazard Label	Not Applicable
	Special provisions	Not Applicable
	Limited quantity	Not Applicable
	Tunnel Restriction Code	Not Applicable

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	ICAO/IATA Class	Not Applicable
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Special provisions	Not Applicable
	Cargo Only Packing Instructions	Not Applicable
	Cargo Only Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Packing Instructions	Not Applicable
	Passenger and Cargo Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable

Passenger and Cargo Limited Maximum Qty / Pack

Not Applicable

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

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	IMDG Class	Not Applicable
	IMDG Subrisk	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	EMS Number	Not Applicable
	Special provisions	Not Applicable
	Limited Quantities	Not Applicable

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	Not Applicable	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Classification code	Not Applicable
	Special provisions	Not Applicable
	Limited quantity	Not Applicable
	Equipment required	Not Applicable
	Fire cones number	Not Applicable

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

Not Applicable

SECTION 15 Regulatory information**15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture****lubricating oils, petroleum C20-50, hydrotreated neutral is found on the following regulatory lists**

Belgium Occupational Exposure Limits	Europe EC Inventory
Chemical Footprint Project - Chemicals of High Concern List	European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI
EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 2) Carcinogens: category 1B (Table 3.1)/category 2 (Table 3.2)	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

1-decene homopolymer, hydrogenated is found on the following regulatory lists

Europe EC Inventory

paraffinic distillate, heavy, solvent-dewaxed (severe) is found on the following regulatory lists

Belgium Occupational Exposure Limits

Chemical Footprint Project - Chemicals of High Concern List

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 2)
Carcinogens: category 1B (Table 3.1)/category 2 (Table 3.2)**Europe EC Inventory**

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

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

nonylated diphenylamines is found on the following regulatory lists

EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate is found on the following regulatory lists

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

dodecylphenol, branched is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances

EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 6) Toxic to reproduction: category 1B (Table 3.1)/category 2 (Table 3.2)

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

mineral oil is found on the following regulatory lists

Belgium Occupational Exposure Limits

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

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2015/830; Regulation (EC) No 1272/2008 as updated through ATPs.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

National Inventory Status

National Inventory	Status
Australia - AIIIC	Yes
Australia - Non-Industrial Use	No (lubricating oils, petroleum C20-50, hydrotreated neutral; 1-decene homopolymer, hydrogenated; paraffinic distillate, heavy, solvent-dewaxed (severe); nonylated diphenylamines; zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate; dodecylphenol, branched)
Canada - DSL	Yes
Canada - NDSL	No (lubricating oils, petroleum C20-50, hydrotreated neutral; 1-decene homopolymer, hydrogenated; paraffinic distillate, heavy, solvent-dewaxed (severe); nonylated diphenylamines; zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (lubricating oils, petroleum C20-50, hydrotreated neutral)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (lubricating oils, petroleum C20-50, hydrotreated neutral; nonylated diphenylamines; zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate; dodecylphenol, branched)
Vietnam - NCI	Yes
Russia - ARIPS	No (lubricating oils, petroleum C20-50, hydrotreated neutral; zinc bis[O-(6-methylheptyl & sec-butyl)]dithiophosphate)
Legend:	<p>Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)</p>

SECTION 16 Other information

Revision Date	02/10/2020
Initial Date	17/01/2018

Full text Risk and Hazard codes

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SDS Version Summary

Version	Issue Date	Sections Updated
5.1.1.1	01/03/2019	Fire Fighter (extinguishing media)
6.1.1.1	02/10/2020	Classification

Other information

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

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

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

- EN 166 Personal eye-protection
- EN 340 Protective clothing
- EN 374 Protective gloves against chemicals and micro-organisms
- EN 13832 Footwear protecting against chemicals
- EN 133 Respiratory protective devices

Definitions and abbreviations

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

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