

20024 TOP TEC ATF 1600 1L

Liqui Moly GmbH

Chemwatch: **52-9936** Version No: **3.1.1.1**

Safety Data Sheet according to WHMIS 2015 requirements

Chemwatch Hazard Alert Code: 1

Issue Date: 01/11/2019 Print Date: 26/03/2020 S.GHS.CAN.EN

SECTION 1 IDENTIFICATION

Product Identifier

Product name	20024 TOP TEC ATF 1600 1L
Synonyms	Item No: 20024
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Delevent identified uses	Lubricant.
Relevant identified uses	Use according to manufacturer's directions.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Liqui Moly GmbH	
Address	erg-Wieland-Strasse 4 Ulm D-89081 Germany	
Telephone	+49 731 1420 0	
Fax	+49 731 1420 82	
Website	http://www.liqui-moly.com/	
Email	Not Available	

Emergency phone number

Association / Organisation	INFOTRAC	
Emergency telephone numbers	+1800 535 5053 (US, Canada & Mexico)	
Other emergency telephone numbers	+1 352 323 3500 (International)	

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

CANADIAN WHMIS SYMBOLS

Classification	Eye Irritation Category 2B	
Label elements		
Hazard pictogram(s)	Not Applicable	
SIGNAL WORD	WARNING	

Hazard statement(s)

H320 Causes eye irritation.

Physical and Health hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

P264 Wash all exposed external body areas thoroughly after handling.

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Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

Not Applicable

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
72623-87-1.	>50	lubricating oils, petroleum C20-50, hydrotreated neutral

SECTION 4 FIRST-AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

May emit corrosive fumes.

Treat symptomatically.

- ▶ Heavy and persistent skin contamination over many years may lead to dysplastic changes. Pre-existing skin disorders may be aggravated by exposure to this product.
- ▶ In general, emesis induction is unnecessary with high viscosity, low volatility products, i.e. most oils and greases.
- ▶ High pressure accidental injection through the skin should be assessed for possible incision, irrigation and/or debridement.

NOTE: Injuries may not seem serious at first, but within a few hours tissue may become swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Product may be forced through considerable distances along tissue planes.

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing media

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

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		
Special protective equipment a	and precautions for fire-fighters		
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. 		
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). Combustion products include: carbon dioxide (CO2) nitrogen oxides (NOx) phosphorus oxides (POx) sulfur oxides (SOx) other pyrolysis products typical of burning organic material. 		

Foaming may cause overflow of containers and may result in possible fire.

CARE: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns.

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SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	Slippery when spilt. In Remove all ignition sources. In Clean up all spills immediately. In Avoid breathing vapours and contact with skin and eyes. In Control personal contact with the substance, by using protective equipment.
Major Spills	Slippery when spilt. 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.

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

SECTION 7 HANDLING AND STORAGE

Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin 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.
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.

Conditions for safe storage, including any incompatibilities						
Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. 					
Storage incompatibility	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. • Avoid reaction with oxidising agents					

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	lubricating oils, petroleum C20-50, hydrotreated neutral	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Nova Scotia Occupational Exposure Limits	lubricating oils, petroleum C20-50, hydrotreated neutral	Oil mist - mineral	5 mg/m3	10 mg/m3	Not Available	TLV Basis: lung. As sampled by method that does not collect vapor.
Canada - Alberta Occupational Exposure Limits	lubricating oils, petroleum C20-50, hydrotreated neutral	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	lubricating oils, petroleum C20-50, hydrotreated neutral	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Manitoba Occupational Exposure Limits	lubricating oils, petroleum C20-50, hydrotreated neutral	Not Available	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	lubricating oils, petroleum C20-50, hydrotreated neutral	Mineral oil (mist)	5 mg/m3	10 mg/m3	Not Available	Not Available
Canada - Northwest Territories Occupational Exposure Limits (English)	lubricating oils, petroleum C20-50, hydrotreated neutral	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available

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Canada - British Columbia Occupational Exposure Limits	lubricating oils, petroleum C20-50, hydrotreated neutral	Oil mist - mineral, severely refined	1 mg/m3	Not Available	Not Available	Not Available
Canada - Prince Edward Island Occupational Exposure Limits	lubricating oils, petroleum C20-50, hydrotreated	Mineral oil, excluding metal working fluids - Pure, highly and severely refined	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
lubricating oils, petroleum	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	1,500	8,900
C20-50, hydrotreated neutral		mg/m3	mg/m3	mg/m3

Ingredient	Original IDLH	Revised IDLH
lubricating oils, petroleum C20-50, hydrotreated neutral	2,500 mg/m3	Not Available

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

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.

Skin protection

See Hand protection below

Wear chemical protective gloves, e.g. PVC.

▶ Wear safety footwear or safety gumboots, e.g. Rubber

Hands/feet protection

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.

Body protection

See Other protection below

Other protection

- Overalls.
- P.V.C. apron.Barrier cream.

Respiratory protection

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

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

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - Full-face

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

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Red colour liquid with characteristic odour; not miscible	Red colour liquid with characteristic odour; not miscible with water.				
Physical state	Liquid	Relative density (Water = 1)	0.84			
Odour	Not Available	Partition coefficient n-octanol / water	Not Available			

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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)	29.6 (40C)
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	200	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 Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

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

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	Inhalation hazard is increased at higher temperatures. Inhalation of oil droplets or aerosols may cause discomfort and may produce chemical inflammation of the lungs.						
Ingestion	The material has NOT been classified by EC Directives o corroborating animal or human evidence.	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.					
Skin Contact	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 viror 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	cause eye irritation and damage in some persons.					
Chronic	Oil may contact the skin or be inhaled. Extended exposur on the soles of the feet.	e can lead to eczema, inflammation of hair follicles, pigmentation of the face and warts					
00004 TOD TEO ATE 4000 41	TOXICITY	IRRITATION					
20024 TOP TEC ATF 1600 1L	Not Available	Not Available					
	TOXICITY	IRRITATION					
lubricating oils, petroleum	Dermal (rabbit) LD50: >2000 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]					
C20-50, hydrotreated neutral	Inhalation (rat) LC50: >5.3 mg/l4 h ^[1]	Skin: no adverse effect observed (not irritating) ^[1]					
	Oral (rat) LD50: >5000 mg/kg ^[2]						
Leaend:	Value obtained from Europe ECHA Registered Substal	nces - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise					

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:

The adverse effects of these materials are associated with undesirable components, and

specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

For highly and severely refined distillate base oils:

- 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 residual base oils 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. Unrefined & mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing 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. Testing of residual oils for mutation-causing and cancer-causing potential has shown negative results, supporting the belief that these materials lack biologically active components or the components are largely non-bioavailable due to their molecular size. Toxicity testing has consistently shown that lubricating base oils have low acute toxicities.

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In animal studies, the acute, oral, semilethal dose is >5g/kg body weight and the semilethal dose by skin contact is >2g/kg body weight. The semilethal concentration for inhalation is 2.18 to >4 mg/L. The materials have varied from "non-irritating" to "moderately irritating" when tested for skin and eye irritation. Testing for sensitisation has been negative.

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

Leaend:

X − Data either not available or does not fill the criteria for classification
 v − Data available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available
ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	>100mg/L	2
EC50	48	Crustacea	>10-mg/L	2
NOEC	504	Crustacea	>1mg/L	1
	Not Available ENDPOINT LC50 EC50	Not Available Not Available ENDPOINT TEST DURATION (HR) LC50 96 EC50 48	Not Available Not Available ENDPOINT TEST DURATION (HR) SPECIES LC50 96 Fish EC50 48 Crustacea	Not Available Not Available Not Available Not Available ENDPOINT TEST DURATION (HR) SPECIES VALUE LC50 96 Fish >100mg/L EC50 48 Crustacea >10-mg/L

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

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility	
	No Data available for all ingredients	

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal

- ▶ Recycle wherever possible or consult manufacturer for recycling options.
- ► Consult State Land Waste Authority for disposal.
- ▶ Bury or incinerate residue at an approved site.
- ▶ Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant NO

Land transport (TDG): 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

SECTION 15 REGULATORY INFORMATION

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

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled

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Products Regulations.

LUBRICATING OILS, PETROLEUM C20-50, HYDROTREATED NEUTRAL IS FOUND ON THE FOLLOWING REGULATORY LISTS

Canada - Alberta Occupational Exposure Limits	Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination
Canada - British Columbia Occupational Exposure Limits	Limits
Canada - Manitoba Occupational Exposure Limits	Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances
Canada - Northwest Territories Occupational Exposure Limits	Canada Categorization decisions for all DSL substances
Canada - Nova Scotia Occupational Exposure Limits	Canada Domestic Substances List (DSL)
Canada - Prince Edward Island Occupational Exposure Limits	Chemical Footprint Project - Chemicals of High Concern List
Canada - Quebec Permissible Exposure Values for Airborne Contaminants	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC
	Monographs

National Inventory Status

National Inventory	Status	
Australia - AICS	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (lubricating oils, petroleum C20-50, hydrotreated neutral)	
China - IECSC Yes		
Europe - EINEC / ELINCS / NLP Yes		
Japan - ENCS No (lubricating oils, petroleum C20-50, hydrotreated neutral)		
orea - 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)		
Vietnam - NCI	l Yes	
Russia - ARIPS	RIPS No (lubricating oils, petroleum C20-50, hydrotreated neutral)	
Legend: 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)		

SECTION 16 OTHER INFORMATION

Revision Date	01/11/2019
Initial Date	18/08/0015

SDS Version Summary

Version	Issue Date	Sections Updated
3.1.1.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification

Other information

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

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

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations

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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TEL (+61 3) 9572 4700.