T35 Catalyst

Wacker (Wacker-Chemie)

Chemwatch: **22-8182**Version No: **2.1.1.1**

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 1

Issue Date: **27/06/2017**Print Date: **05/02/2018**S.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	T35 Catalyst
Synonyms	Not Available
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains dibutyltin diacetate and tin)
Other means of identification	Not Available

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

Relevant identified uses	Industrial intermediate chemical.
--------------------------	-----------------------------------

Details of the supplier of the safety data sheet

Registered company name	Wacker (Wacker-Chemie)
Address	Hanns-Seidel-Platz 4 Muenchen 22 D-81737 Germany
Telephone	+49 89 627901
Fax	+49 89 6279 1770
Website	www.wacker.com
Email	info@wacker.com

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

COMBUSTIBLE LIQUID, regulated for storage purposes only

Poisons Schedule	Not Applicable
Classification [1]	Flammable Liquid Category 4
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

Label elements

Hazard pictogram(s)	Not Applicable
SIGNAL WORD	WARNING

Hazard statement(s)

H227	Combustible liquid.
------	---------------------

Precautionary statement(s) Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

P370	n .	רם	70

In case of fire: Use alcohol resistant foam or normal protein foam for extinction.

Precautionary statement(s) Storage

P403+P235

Store in a well-ventilated place. Keep cool.

Precautionary statement(s) Disposal

P501

Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
Not Available	NotSpec.	silicic acid ester
9016-00-6	NotSpec.	poly(dimethyl siloxane)
1067-33-0	NotSpec.	dibutyltin diacetate
7440-31-5	NotSpec.	<u>tin</u>
71-23-8	NotSpec.	n-propanol

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with eyes: • Wash out immediately with water. • If irritation continues, seek medical attention. • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: ► 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

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

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

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
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. - 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). - *3Z

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	 Environmental hazard - contain spillage. 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.
Major Spills	Environmental hazard - contain spillage. 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

Precautions for safe handling

Safe handling	 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. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers.

Conditions for safe storage, including any incompatibilities

somations for sure storage, metalang any moompatismico		
Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. 	
Storage incompatibility	Avoid contamination of water, foodstuffs, feed or seed. • 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
Australia Exposure Standards	dibutyltin diacetate	Tin, organic compounds (as Sn)	0.1 mg/m3	0.2 mg/m3 / - ppm	Not Available	Not Available
Australia Exposure Standards	tin	Tin, metal	2 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	n-propanol	Propyl alcohol	492 mg/m3 / 200 ppm	614 mg/m3 / 250 ppm	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
poly(dimethyl siloxane)	Polydimethyl siloxane; (Dimethylpolysiloxane)	6.8 mg/m3	75 mg/m3	450 mg/m3
dibutyltin diacetate	Diacetoxydibutyl stannane	0.59 mg/m3	6.5 mg/m3	39 mg/m3
tin	Tin	6 mg/m3	67 mg/m3	400 mg/m3
n-propanol	n-Propanol (Propyl alcohol, n-)	250 ppm	670 ppm	4000 ppm

Ingredient	Original IDLH	Revised IDLH
silicic acid ester	Not Available	Not Available
poly(dimethyl siloxane)	Not Available	Not Available
dibutyltin diacetate	25 mg/m3	Not Available
tin	Not Available	Not Available

Not Available 800 ppm n-propanol

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. 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

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.

Wear general protective gloves, eg. light weight rubber gloves.

Body protection

See Other protection below

No special equipment needed when handling small quantities.

Other protection

- OTHERWISE: Overalls.
- ▶ Barrier cream.
- ▶ Evewash unit.

Thermal hazards

Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

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

T35 Catalyst

Material	СРІ
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE	С
NEOPRENE/NATURAL	С
NITRILE	С
NITRILE+PVC	С
PVC	С
TEFLON	С
VITON	С

* 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 AB-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

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	AB-AUS P2	-	AB-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AB-AUS / Class 1 P2	-
up to 100 x ES	-	AB-2 P2	AB-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)

Information on basic physical and chemical properties

Appearance	Colourless liquid with a slight odour; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	1 approx@20C
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	250
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	10@23C
Initial boiling point and boiling range (°C)	225-230	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	70	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Combustible.	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

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

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
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.
Skin Contact	The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives.
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 the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course. As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

T35 Catalyst Oral (Rat) LD50: >20000 mg/kg ^[2]		IRRITATION Not Available	
poly(dimethyl siloxane)	TOXICITY Not Available	IRRITATION Eye (rabbit): 100 mg/1h - mild.	

	TOXICITY	IRRITATION	
dibutyltin diacetate	Dermal (rabbit) LD50: 2318 mg/kg ^[2]	Not Available	
	Oral (rat) LD50: 32 mg/kg ^[2]		
	TOXICITY	IRRITATION	
tin	dermal (rat) LD50: >2000 mg/kg ^[1]	Not Available	
	Oral (rat) LD50: >2000 mg/kg ^[1]		
	TOXICITY	IRRITATION	
	Dermal (rabbit) LD50: 5040 mg/kg ^[2]	Eye (rabbit): 2	20 mg/24h moderate
n-propanol	Oral (rat) LD50: 1870 mg/kg ^[2]	Eye (rabbit): 4	mg open SEVERE
		Skin (rabbit):	20 mg/24h moderate
		Skin (rabbit):	500 mg open mild
Legend:	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		
	·	<u> </u>	
POLY(DIMETHYL SILOXANE)	Siloxanes may impair liver and hormonal function, as well as the lung and kidney. They have not been found to be irritating to the skin and eyes. They may potentially cause cancer (tumours of the womb in females) and may cause impaired fertility or infertility. NOTE: Tumorigenic in rats: Neoplastic by RTECS criteria. Product subject to review for use in body implants Chronic exposure Carcinogenicity-rat-Implant Tumorigenic:Neoplastic by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. Endocrine:Tumors		
POLY(DIMETHYL SILOXANE) & TIN	No significant acute toxicological data identified in literature search.		
Acute Toxicity	x	Carcinogenicity	0
Skin Irritation/Corrosion	0	Reproductivity	0
Serious Eye Damage/Irritation	0	STOT - Single Exposure	0
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	0

Legend: X − Data available but does not fill the criteria for classification

✓ – Data available to make classification

○ – Data Not 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
BCF	72	Fish	1.33mg/L	4
ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
EC50	48	Crustacea	1.4mg/L	2
EC50	72	Algae or other aquatic plants	0.035mg/L	4
NOEC	48	Crustacea	0.65mg/L	2
ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	>0.0124mg/L	2
EC50	48	Crustacea	0.00018mg/L	5
EC50	72	Algae or other aquatic plants	>0.0192mg/L	2
NOEC	168	Crustacea	<0.005mg/L	2
ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	3800mg/L	4
EC50	48	Crustacea	=3642mg/L	1
	Not Available ENDPOINT BCF ENDPOINT EC50 EC50 NOEC ENDPOINT LC50 EC50 NOEC	Not Available Not Available ENDPOINT TEST DURATION (HR) BCF 72 ENDPOINT TEST DURATION (HR) EC50 48 EC50 72 NOEC 48 ENDPOINT TEST DURATION (HR) LC50 96 EC50 48 EC50 72 NOEC 168 ENDPOINT TEST DURATION (HR) LC50 96	Not AvailableNot AvailableNot AvailableENDPOINTTEST DURATION (HR)SPECIESBCF72FishENDPOINTTEST DURATION (HR)SPECIESEC5048CrustaceaEC5072Algae or other aquatic plantsNOEC48CrustaceaENDPOINTTEST DURATION (HR)SPECIESLC5096FishEC5048CrustaceaEC5072Algae or other aquatic plantsNOEC168CrustaceaENDPOINTTEST DURATION (HR)SPECIESLC5096Fish	Not Available Not Available Not Available Not Available ENDPOINT TEST DURATION (HR) SPECIES VALUE BCF 72 Fish 1.33mg/L ENDPOINT TEST DURATION (HR) SPECIES VALUE EC50 48 Crustacea 1.4mg/L EC50 72 Algae or other aquatic plants 0.035mg/L NOEC 48 Crustacea 0.65mg/L ENDPOINT TEST DURATION (HR) SPECIES VALUE EC50 96 Fish >0.0124mg/L EC50 72 Algae or other aquatic plants >0.0192mg/L NOEC 168 Crustacea <0.005mg/L

	EC50 96	Algae or other aquatic plants	4480mg/L 4
Legend:	Extracted from 1. IUCLID Toxicit	ty Data 2. Europe ECHA Registered Substances - Ecotoxicolog	gical Information - Aquatic
	Toxicity 3. EPIWIN Suite V3.12 ((QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox	database - Aquatic Toxicity
	Data 5. ECETOC Aquatic Hazar	rd Assessment Data 6. NITE (Japan) - Bioconcentration Data 7.	METI (Japan) -
	Bioconcentration Data 8. Vendor	r Data	

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
dibutyltin diacetate	HIGH	HIGH
n-propanol	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
dibutyltin diacetate	LOW (LogKOW = 0.8138)
n-propanol	LOW (LogKOW = 0.25)

Mobility in soil

Ingredient	Mobility
dibutyltin diacetate	LOW (KOC = 283.7)
n-propanol	HIGH (KOC = 1.325)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- ► Reduction
- ► Reuse
- ▶ Recycling
- ► Disposal (if all else fails)

Product / Packaging disposal

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended

- ▶ 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 Management Authority for disposal.
- ▶ Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required



Land transport (ADG)

UN number	3082	
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains dibutyltin diacetate and tin)	
Transport hazard	Class 9	
class(es)	Subrisk Not Applicable	
Packing group	III	

Environmental hazard	Not Applicable	
Special precautions for user	Special provisions	274 331 335 375 AU01
	Limited quantity	5 L

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;

- (a) packagings;
- (b) IBCs; or
- (c) any other receptacle not exceeding 500 kg(L).
- Australian Special Provisions (SP AU01) ADG Code 7th Ed.

Air transport (ICAO-IATA / DGR)

UN number	3082			
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. * (contains dibutyltin diacetate and tin)			
Transport hazard	ICAO/IATA Class ICAO / IATA Subrisk	9 Not Applicable		
class(es)	ERG Code	9L		
Packing group				
Environmental hazard	Not Applicable			
	Special provisions		A97 A158 A197	
	Cargo Only Packing Instructions		964	
	Cargo Only Maximum Qty / Pack		450 L	
Special precautions for user	Passenger and Cargo Packing Instructions		964	
usei	Passenger and Cargo Maximum Qty / Pack		450 L	
	Passenger and Cargo Limited Quantity Packing Instructions		Y964	
	Passenger and Cargo Limited Maximum Qty / Pack		30 kg G	

Sea transport (IMDG-Code / GGVSee)

UN number	3082		
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains dibutyltin diacetate and tin)		
Transport hazard class(es)	IMDG Class 9 IMDG Subrisk Not Applicable		
Packing group			
Environmental hazard	Not Applicable		
Special precautions for user	Special provisions	F-A , S-F 274 335 969 5 L	

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

POLY(DIMETHYL SILOXANE)(9016-00-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

DIBUTYLTIN DIACETATE(1067-33-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards Australia Inventory of Chemical Substances (AICS)

Australia Hazardous Substances Information System - Consolidated Lists

TIN(7440-31-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards Australia Inventory of Chemical Substances (AICS)

Australia Hazardous Substances Information System - Consolidated Lists

Australia Hazardous Substances Information System - Consolidated Lists

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (n-propanol; dibutyltin diacetate; poly(dimethyl siloxane); tin)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	N (poly(dimethyl siloxane))
Japan - ENCS	N (tin)
Korea - KECI	Y
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	N (poly(dimethyl siloxane))
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
poly(dimethyl siloxane)	9016-00-6, 28323-47-9

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

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

Definitions and abbreviations

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

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit。

IDLH: Immediately Dangerous to Life or Health Concentrations

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

This document is copyright.

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

TEL (+61 3) 9572 4700.