

Ardex (Ardex Australia)

Chemwatch: 7516-96 Version No: 5.1.1.1

Safety Data Sheet according to WHS and ADG requirements

Issue Date: 01/09/2016 Print Date: 02/09/2016 S.GHS.AUS.EN

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

#### **Product Identifier**

Product name	Ardex Grout Booster
Synonyms	grout additive
Other means of identification	Not Available

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

Relevant identified uses Additive for grout mixes.

#### Details of the supplier of the safety data sheet

Registered company name Ardex (Ardex Australia) Ardex (Ardex NZ)		Ardex (Ardex NZ)
Address 20 Powers Road Seven Hills NSW 2147 Australia 32 Lane Street Woolston Christchurch New		32 Lane Street Woolston Christchurch New Zealand
Telephone	1800 224 070	+64 3373 6928
Fax	1300 780 102	+64 3384 9779
Website	Not Available	Not Available
Email	Not Available	Not Available

# Emergency telephone number

Association / Organisation	Not Available	Not Available
Emergency telephone numbers	1800 224 070 (Mon-Fri, 9am-5pm)	+64 3373 6900
Other emergency telephone numbers	Not Available	Not Available

# **SECTION 2 HAZARDS IDENTIFICATION**

#### Classification of the substance or mixture

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

# CHEMWATCH HAZARD RATINGS

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

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

Label elements		
GHS label elements	Not Applicable	
SIGNAL WORD	NOT APPLICABLE	

H402	Harmful to aquatic life
Precautionary statement(s	) Prevention
P273 Avoid release to the environment.	

# Precautionary statement(s) Response

Not Applicable

# Precautionary statement(s) Storage

Not Applicable

# 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
9003-55-8	10-30	styrene/ butadiene copolymer
1336-21-6	<0.5	ammonium hydroxide
Not Available	<0.2	biocide
Not Available	<0.2	additives, unregulated
7732-18-5	>60	<u>water</u>

#### **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	<ul> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>
Ingestion	<ul> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Seek medical advice.</li> </ul>

# Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

# **SECTION 5 FIREFIGHTING MEASURES**

#### Extinguishing media

The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.

Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.

▶ foam.

# Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.		
Advice for firefighters			
Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves in the event of a fire.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use fire fighting procedures suitable for surrounding area.</li> </ul>		
Fire/Explosion Hazard	<ul> <li>The material is not readily combustible under normal conditions.</li> <li>However, it will break down under fire conditions and the organic component may burn.</li> <li>Not considered to be a significant fire risk.</li> <li>Heat may cause expansion or decomposition with violent rupture of containers.</li> </ul>		

	Decomposes on heating and produces toxic fumes of; carbon dioxide (CO2) other pyrolysis products typical of burning organic materialMay emit poisonous fumes. May emit corrosive fumes.
HAZCHEM	Not Applicable

#### **SECTION 6 ACCIDENTAL RELEASE MEASURES**

# Personal precautions, protective equipment and emergency procedures

See section 8

#### **Environmental precautions**

See section 12

# Methods and material for containment and cleaning up

Minor Spills	<ul> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb spill with sand, earth, inert material or vermiculite.</li> </ul>
Major Spills	Moderate hazard.  ► Clear area of personnel and move upwind.  ► Alert Fire Brigade and tell them location and nature of hazard.  ► Wear breathing apparatus plus protective gloves.

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

# **SECTION 7 HANDLING AND STORAGE**

#### Precautions for safe handling

Safe handling	<ul> <li>DO NOT allow clothing wet with material to stay in contact with skin</li> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Prevent concentration in hollows and sumps.</li> </ul>
Other information	<ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>Store in a cool, dry, well-ventilated area.</li> <li>Store away from incompatible materials and foodstuff containers.</li> </ul>

on an one for safe storage, menangany moon panement				
Suitable container	<ul> <li>Polyethylene or polypropylene container.</li> <li>Packing as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul>			
Storage incompatibility	None known			

# **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	ammonium hydroxide	Ammonia	17 mg/m3 / 25 ppm	24 mg/m3 / 35 ppm	Not Available	Not Available

# EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
ammonium hydroxide	Ammonium hydroxide	61 ppm	330 ppm	2300 ppm
ammonium hydroxide	Ammonia	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
styrene/ butadiene copolymer	Not Available	Not Available
ammonium hydroxide	500 ppm	300 ppm
biocide	Not Available	Not Available
additives, unregulated	Not Available	Not Available
water	Not Available	Not Available

# **Exposure controls**

Appropriate engineering	g
control	s

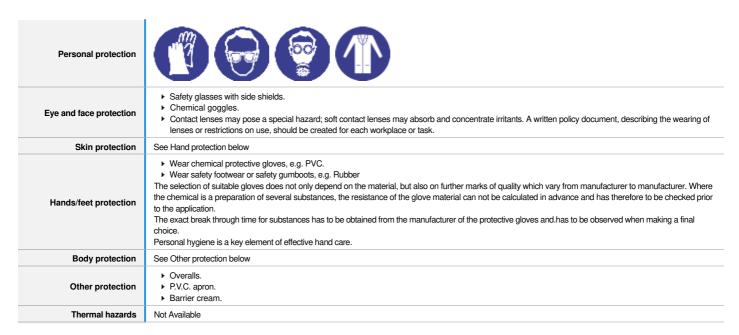
Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

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.

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#### Recommended material(s)

#### GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

# "Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the  $\ computergenerated$  selection:

Ardex Grout Booster

Material	СРІ
BUTYL	С
HYPALON	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE	С
NEOPRENE/NATURAL	С
NITRILE	С
NITRILE+PVC	С
PVA	С
PVC	С
VITON	С

<sup>\*</sup> CPI - Chemwatch Performance Index

A: Best Selection

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

#### Respiratory protection

Type AK 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 5 x ES	AK-AUS / Class 1	-	AK-PAPR-AUS / Class 1
up to 25 x ES	Air-line*	AK-2	AK-PAPR-2
up to 50 x ES	-	AK-3	-
50+ x ES	-	Air-line**	-

<sup>^ -</sup> Full-face

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

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.

# **SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

# Information on basic physical and chemical properties

Appearance	Milky white liquid with a slight odour; disperses in water.				
Physical state	Liquid	Relative density (Water = 1)	Not Available		
Odour	Not Available	Partition coefficient n-octanol / water	Not Available		
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable		
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available		
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available		
Initial boiling point and boiling range (°C)	100	Molecular weight (g/mol)	Not Applicable		
Flash point (°C)	Not Applicable	Taste	Not Available		

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

<sup>\*</sup> 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.

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Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	73-77 approx
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	9-11 dispersion
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

# **SECTION 10 STABILITY AND REACTIVITY**

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
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**

In	format	ion o	n to	xicol	logi	cal	effe	cts
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There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further
lung damage.
Fully cured, vulcanised styrene/ butadiene rubber (SRR) products have a low toxicity. Dusts may cause temporary mild irritation and counting

Uncured (unvulcanised) SBR may contain styrene, butadiene residues, solvents and processing agents, which may have harmful effects. These chemicals may be inhaled in the form of vapours emitted from the solid material or as components of dust particles. Not normally a hazard due to non-volatile nature of product

Inhaled

The highly irritant properties of ammonia vapour result as the gas dissolves in mucous fluids and forms irritant, even corrosive solutions.

Inhalation of the ammonia fumes causes coughing, vomiting, reddening of lips, mouth, nose, throat and conjunctiva while higher concentrations can cause temporary blindness, restlessness, tightness in the chest, pulmonary oedema (lung damage), weak pulse and cyanosis.

Inhalation of high concentrations of vapour may cause breathing difficulty, tightness in chest, pulmonary oedema and lung damage. Brief exposure to high concentrations > 5000 ppm may cause death due to asphyxiation (suffocation) or fluid in the lungs.

Accidental ingestion of the material may be damaging to the health of the individual. Ingestion |Ingestion of large quantities may coagulate and block the gastrointestinal|tract.

There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.

Irritation and skin reactions are possible with sensitive skin

**Skin Contact** Open cuts, abraded or irritated skin should not be exposed to this material

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. Limited evidence or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals. Prolonged eye contact may

Eye cause inflammation characterised by a temporary redness of the conjunctiva (similar to windburn).

There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.

Andre Once December	TOXICITY	IRRITATION	
Ardex Grout Booster	Not Available	Not Available	
	TOXICITY	IRRITATION	
styrene/ butadiene copolymer	Dermal (rabbit) LD50: >18800 mg/kg <sup>[2]</sup>	Eye (rabbit) 500: mg/24h -	
сорогупис	Oral (rat) LD50: 71000 mg/kg <sup>[2]</sup>	Eye : Mild	
	TOXICITY	IRRITATION	
ammonium hydroxide	Inhalation (rat) LC50: 2000 ppm/4hr <sup>[2]</sup> Eye (rabbit): 0.25 mg SEVERE		
	Oral (rat) LD50: 350 mg/kg <sup>[2]</sup>	Eye (rabbit): 1 mg/30s SEVERE	
	TOXICITY	IRRITATION	
water	Oral (rat) LD50: >90000 mg/kg <sup>[2]</sup>	Not Available	

extracted from RTECS - Register of Toxic Effect of chemical Substances

STYRENE/ BUTADIENE COPOLYMER The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. 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.

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AMMONIUM HYDROXIDE	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.  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 diseases, 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.			
WATER	No significant acute toxicological data identified in literature search.			
Acute Toxicity	0	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	Asniration Hazard	0	

X − Data available but does not fill the criteria for classification
 ✓ − Data required to make classification available

O - Data Not Available to make classification

# **SECTION 12 ECOLOGICAL INFORMATION**

#### Toxicity

-					
Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
ammonium hydroxide	LC50	96	Fish	15mg/L	4
ammonium hydroxide	NOEC	72	Fish	3.5mg/L	4
water	LC50	96	Fish	897.520mg/L	3
water	EC50	96	Algae or other aquatic plants	8768.874mg/L	3
water	EC50	384	Crustacea	199.179mg/L	3
Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EF  Legend: Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data					

Harmful to aquatic organisms.

DO NOT discharge into sewer or waterways.

# Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ammonium hydroxide	LOW	LOW
water	LOW	LOW

# **Bioaccumulative potential**

Ingredient	Bioaccumulation
ammonium hydroxide	LOW (LogKOW = 0.229)
water	LOW (LogKOW = -1.38)

# Mobility in soil

Ingredient	Mobility
ammonium hydroxide	LOW (KOC = 14.3)
water	LOW (KOC = 14.3)

# **SECTION 13 DISPOSAL CONSIDERATIONS**

# Waste treatment methods

Product / Packaging

disposal

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

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

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

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

- ▶ 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.
- ► Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility

- can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers.

#### **SECTION 14 TRANSPORT INFORMATION**

#### Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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

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

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

Not Applicable

#### **SECTION 15 REGULATORY INFORMATION**

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

# STYRENE/ BUTADIENE COPOLYMER(9003-55-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS) International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft

#### AMMONIUM HYDROXIDE(1336-21-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

Australia Hazardous Substances Information System - Consolidated Lists

#### WATER(7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Υ
Canada - NDSL	N (styrene/ butadiene copolymer; water; ammonium hydroxide)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	N (styrene/ butadiene copolymer)
Japan - ENCS	N (water)
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	Υ
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

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

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net

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

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OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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