RESENE STONE STRENGTHENER Resene Paints LTD

Version No: 1.1

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Issue Date: **09/03/2021** Print Date: **10/03/2021** L.GHS.NZL.EN

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

Product Identifier

Product name	RESENE STONE STRENGTHENER	
Chemical Name	Not Applicable	
Synonyms	Not Available	
Other means of identification	Not Available	

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

Relevant identified uses 82

Details of the supplier of the safety data sheet

Registered company name	Resene Paints LTD	
Address	32-50 Vogel Street Wellington 5011 New Zealand	
Telephone	+64 4 5770500	
Fax	+64 4 5773327	
Website	www.resene.co.nz	
Email	advice@resene.co.nz	

Emergency telephone number

Association / Organisation	NZ POISONS (24hr 7days)	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	0800 764766	+61 2 9186 1132
Other emergency telephone numbers	Not Available	+64 800 700 112

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

SECTION 2 Hazards identification

Classification of the substance or mixture

Classification [1]	Specific target organ toxicity - single exposure Category 2, Flammable Liquid Category 4, Acute Aquatic Hazard Category 3, Acute Toxicity (Inhalation) Category 4, Eye Irritation Category 2, Chronic Aquatic Hazard Category 3, Skin Corrosion/Irritation Category 3, Acute Vertebrate Hazard Category 3	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	
Determined by Chemwatch using GHS/HSNO criteria	3.1D, 6.1D (inhalation), 6.3B, 6.4A, 6.9B, 9.1C, 9.1D, 9.3C	

Label elements

Hazard pictogram(s)





Signal word Warning

Hazard statement(s)

H371	May cause damage to organs. (Oral, Dermal, Inhalation)
H227	Combustible liquid.
H332	Harmful if inhaled.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.
H316	Causes mild skin irritation.
H433	Harmful to terrestrial vertebrates.

Version No: **1.1** Page **2** of **8** Issue Date: **09/03/2021**

RESENE STONE STRENGTHENER

Print Date: 10/03/2021

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P308+P311	IF exposed or concerned: Call a POISON CENTER/doctor/physician/first aider.	
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	
P332+P313	If skin irritation occurs: Get medical advice/attention.	
P337+P313	If eye irritation persists: Get medical advice/attention.	
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	

Precautionary statement(s) Storage

• • • • • • • • • • • • • • • • • • • •	
P403	Store in a well-ventilated place.
P405	Store locked up.

Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
77-58-7	0.1-1	dibutyltin dilaurate
78-10-4	10-20	tetraethyl silicate
143-07-7	0.1-0.5	lauric acid

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 if pain persists or recurs. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.	
Skin Contact	If skin or hair contact occurs: P Quickly but gently, wipe material off skin with a dry, clean cloth. Immediately remove all contaminated clothing, including footwear. Wash skin and hair with running water. Transport to hospital, or doctor in event of irritation.	
Inhalation	If aerosols, fumes or combustion products are inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop seek medical attention.	
Ingestion	 IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed. 	

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

Foam.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents
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Version No: **1.1** Page **3** of **8** Issue Date: **09/03/2021**

RESENE STONE STRENGTHENER

Print Date: 10/03/2021

Advice for firefighters

Fire Fighting	▶ Alert Fire Brigade and tell them location and nature of hazard.	
Fire/Explosion Hazard	► Combustible. Combustion products include: carbon dioxide (CO2) silicon dioxide (SiO2) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.	

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	Remove all ignition sources. Contain spill with inert non- combustible absorbent then place in suitable, labelled container for waste disposal. Wipe up. Clean area with large quantity of water to complete clean- up.
Major Spills	Moderate hazard. Remove all ignition sources. Clear area of personnel and move upwind. Wear appropriate personnel protective equipment and clothing to prevent exposure. Avoid breathing in mists or vapours and skin or eyes contact. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non- combustible material onto spillage. Use clean non- sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authority.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	 Avoid unnecessary personal contact, including inhalation. DO NOT allow clothing wet with material to stay in contact with skin 	
Other information	► Store in original containers.	

Conditions for safe storage, including any incompatibilities

Suitable container	▶ Packaging as recommended by manufacturer.
Storage incompatibility	reacts with strong oxidisers

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	dibutyltin dilaurate	Tin metal: Organic compounds, as Sn	0.1 mg/m3	0.2 mg/m3	Not Available	skin-Skin absorption
New Zealand Workplace Exposure Standards (WES)	tetraethyl silicate	Ethyl silicate	10 ppm / 85 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
dibutyltin dilaurate	1.1 mg/m3	8 mg/m3	48 mg/m3
tetraethyl silicate	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
dibutyltin dilaurate	25 mg/m3	Not Available
tetraethyl silicate	700 ppm	Not Available
lauric acid	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
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 Version No: 1.1
 Page 4 of 8
 Issue Date: 09/03/2021

 Print Date: 10/03/2021
 Print Date: 10/03/2021

RESENE STONE STRENGTHENER

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
lauric acid	E	≤ 0.01 mg/m³	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the		

adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

Exposure controls

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Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.
Personal protection	
Eye and face protection	▶ Safety glasses with side shields.
Skin protection	See Hand protection below
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. 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. Polyethylene gloves
Body protection	See Other protection below
Other protection	▶ Overalls.

Respiratory protection

Respiratory protection required in insufficiently ventilated working areas and during spraying. An approved respirator with a replaceable vapour/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to AS/NZS 1715 Standard, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716 Standard, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Recommended filter type: Type A filter (organic vapour).

SECTION 9 Physical and chemical properties

Information on basic physical and che	emical properties
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Appearance	Colourless liquid with ester-like odour		
Physical state	Liquid	Relative density (Water = 1)	1.06
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	235
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	160	Molecular weight (g/mol)	Not Available
Flash point (°C)	62	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)	82
Vapour pressure (kPa)	<2	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	611

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	▶ stable
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7

Version No: **1.1** Page **5** of **8** Issue Date: **09/03/2021**

RESENE STONE STRENGTHENER

Print Date: 10/03/2021

Hazardous decomposition products

See section 5

SECTION 11 Toxicological information

Information on toxicological ef	ffects			
Inhaled	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. Acute effects from inhalation of high vapour concentrations may be chest and nasal irritation with coughing, sneezing, headache and even nausea.			
Ingestion	Strong evidence exists that exposure to the material may produce serior teratogenesis) following a single exposure by swallowing. Ingestion of ethyl silicate may produce liver, kidney and lung damage.			
Skin Contact	The material may accentuate any pre-existing dermatitis condition Skin contact with liquid ethyl silicate may result in dryness, cracking, inflammation. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects.			
Еуе	Evidence exists, or practical experience predicts, that the material may	The vapour when concentrated has pronounced eye irritation effects and this gives some warning of high vapour concentrations. Evidence exists, or practical experience predicts, that the material may cause severe eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals.		
Chronic	Long-term exposure to respiratory irritants may result in disease of the a Limited evidence suggests that repeated or long-term occupational exposion biochemical systems.			
	TOXICITY	IRRITATI	ON	
RESENE STONE STRENGTHENER	Not Available	Not Availa		
	TOXICITY	IRRITAT	TON	
dibutyltin dilaurate	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rab	sbit): 100 mg/24h -moderate	
	Oral(Rat) LD50; >=33<=300 mg/kg ^[1]	Skin (ral	obit): 500 mg/24h - mild	
	TOXICITY	IRRITATION		
	Dermal (rabbit) LD50: 6.3 mg/kg ^[1]	Eye (human): 3000 ppm		
tetraethyl silicate	Inhalation(Rat) LC50; >5.03 mg/l4 ^[1]		bit): 100 mg mild	
	Oral(Rat) LD50; >2000 mg/kg ^[1]		bit): 500 mg/24h - mild bit): 500mg/24h moderate	
		OKIII (Idi	July, 300mg/24mmoderate	
	тохісіту		IRRITATION	
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]		Eye (rabbit): 100 mg - mild	
lauric acid	Inhalation(Rat) LC50; >0.162 mg//4 ^[1]		Skin (rabbit): 500 mg - mild	
	Oral(Mouse) LD50; 131 mg/kg ^[2]			
Legend:	Negliar obtained from Europe ECHA Registered Substances - Acute to specified data extracted from RTECS - Register of Toxic Effect of chemical specified data extracted from RTECS - Register of Toxic Effect of chemical specified data.			
DIBUTYLTIN DILAURATE	Exposure to the material may result in a possible risk of irreversible effe	cts.		
TETRAETHYL SILICATE	The material may produce severe irritation to the eye causing pronounced inflammation. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic).			
LAURIC ACID	For aliphatic fatty acids (and salts) Acute oral (gavage) toxicity: The acute oral LD50 values in rats for both were greater than >2000 mg/kg bw Clinical signs were generally associated with poor condition following administration of high doses (salivation, diarrhoea, staining, piloerection and lethargy). There were no adverse effects on body weight in any study In some studies, excess test substance and/or irritation in the gastrointestinal tract was observed at necropsy. Skin and eye irritation potential, with a few stated exceptions, is chain length dependent and decreases with increasing chain length According to several OECD test regimes the animal skin irritation studies indicate that the C6-10 aliphatic acids are severely irritating or corrosive, while the C12 aliphatic acid is irritating, and the C14-22 aliphatic acids generally are not irritating or mildly irritating. Human skin irritation studies using more realistic exposures (30-minute,1-hour or 24-hours) indicate that the aliphatic acids have sufficient, good or very good skin compatibility.			
RESENE STONE STRENGTHENER & TETRAETHYL SILICATE	Asthma-like symptoms may continue for months or even years after exp For silica amorphous: Derived No Adverse Effects Level (NOAEL) in the range of 1000 mg/kg/ In humans, synthetic amorphous silica (SAS) is essentially non-toxic by	d.		

Version No: **1.1** Page **6** of **8** Issue Date: **09/03/2021**

RESENE STONE STRENGTHENER

Print Date: 10/03/2021

Liver, kidney and lung damage may result from overexposure by inhalation or ingestion.			
Acute Toxicity	✓	Carcinogenicity	×
Skin Irritation/Corrosion	✓	Reproductivity	×
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	~
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	X	Aspiration Hazard	×

Legend:

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

SECTION 12 Ecological information

RESENE STONE	Endpoint	Test Duration (hr)	Species	Value	Sour	ce
STRENGTHENER	Not Available	Not Available	Not Available	Not Availabl	e Not A	Available
	Endpoint	Test Duration (hr)	Species		Value	Sourc
	EC10(ECx)	96	Algae or other aquatic plar	nts	>0.5mg/l	4
	BCF	1344	Fish		2.240	7
dibutyltin dilaurate	LC50	96	Fish		21.2mg/l	2
	EC50	48	Crustacea		1.73.4mg/l	2
	EC50	72	Algae or other aquatic plar	nts	>1mg/l	2
	Endpoint	Test Duration (hr)	Species		Value	Source
	LC50	96	Fish		>245mg/l	2
tetraethyl silicate	EC50	48	Crustacea		>75mg/l	2
	EC50	72	Algae or other aquatic pla	ants	>22mg/l	2
	NOEC(ECx)	72	Algae or other aquatic pla	ants	>=22mg/l	2
	Endpoint	Test Duration (hr)	Species		Value	Source
	EC50	48	Crustacea		3.6mg/l	2
lauric acid	LC50	96	Fish		5mg/l	2
	EC50	72	Algae or other aquatic pla	ants	>7.6mg/l	2
	EC50(ECx)	504	Crustacea		0.44mg/l	2

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

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark.

 $\begin{tabular}{ll} \textbf{DO NOT} discharge into sewer or waterways. \end{tabular}$

Consult manufacturer for recycling option.

Resene Paintwise accepts residual unwanted paint and packaging. See Resene website for Paintwise information. Or contact a Local Authority for the disposal information. Do not discharge the substance into the environment.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
dibutyltin dilaurate	HIGH	HIGH
tetraethyl silicate	HIGH	HIGH
lauric acid	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
dibutyltin dilaurate	LOW (BCF = 110)
tetraethyl silicate	LOW (LogKOW = 0.0362)
lauric acid	HIGH (LogKOW = 4.6)

Mobility in soil

Ingredient	Mobility
dibutyltin dilaurate	LOW (KOC = 64610000)
tetraethyl silicate	LOW (KOC = 8766)

 Version No: 1.1
 Page 7 of 8
 Issue Date: 09/03/2021

 Print Date: 10/03/2021
 Print Date: 10/03/2021

RESENE STONE STRENGTHENER

Ingredient	Mobility	
lauric acid	LOW (KOC = 296.5)	

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal

- Containers may still present a chemical hazard/ danger when empty.
- Legislation addressing waste disposal requirements may differ by country, state and/ or territory.
- ▶ DO NOT allow wash water from cleaning or process equipment to enter drains
- Recycle wherever possible or consult manufacturer for recycling options.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package.

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

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
dibutyltin dilaurate	Not Available
tetraethyl silicate	Not Available
lauric acid	Not Available

Transport in bulk in accordance with the ICG Code

-	
Product name	Ship Type
dibutyltin dilaurate	Not Available
tetraethyl silicate	Not Available
lauric acid	Not Available

SECTION 15 Regulatory information

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

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002657	Surface Coatings and Colourants (Combustible) Group Standard 2017

dibutyltin dilaurate is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification
of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)

tetraethyl silicate is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

New Zealand Workplace Exposure Standards (WES)

lauric acid is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

Hazardous Substance Location

Version No: 1.1 Page 8 of 8 Issue Date: 09/03/2021

RESENE STONE STRENGTHENER

Print Date: 10/03/2021

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantities
Not Applicable	Not Applicable

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
3.1C or 3.1D				10 L

Tracking Requirements

Not Applicable

National Inventory Status

•	
National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
New Zealand - NZIoC	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 Other information

Revision Date	09/03/2021
Initial Date	15/01/2016

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.

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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