

Creation Date Oct-2013

Revision Date Oct-2018

Revision Number 2

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

### 1.1. Product identification

**Product Description:** Phosphoric acid, 85+% solution in water  
**Product Grade:** SQ, ER, HPLC  
**Cat No. :** Q29217, Q29218, Q2921U, Q29247, Q29907, Q29908, Q2990D, Q43626, Q29215, Q29216, Q29245, Q2924T, Q29905, Q29218SCS, Q29907SCS  
**Synonyms** Orthophosphoric acid  
**CAS-No** 7664-38-2  
**EC-No.** 231-633-2

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

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

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

**Company** Thermo Fisher Scientific India Pvt. Ltd  
 403-404, B-wing, Delphi, Hiranandani Business Park,  
 Powai, Mumbai 400076, INDIA.  
**E-mail address** [laboratorysolutions@thermofisher.com](mailto:laboratorysolutions@thermofisher.com)

### 1.4. Emergency telephone number

India Toll Free: 18 00 22 22 30  
 Chemtrec US: (800)424-9300  
 Chemtrec EU: 001(202)483-7616

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### CLP Classification - Regulation (EC) No 1272/2008

#### Physical hazards

Substances/mixtures corrosive to metal

Category 1 (H290)

#### Health hazards

Skin Corrosion/irritation  
 Serious Eye Damage/Eye Irritation

Category 1 B (H314)  
 Category 1 (H318)

#### Environmental hazards

Based on available data, the classification criteria are not met

### 2.2. Label elements

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**Signal Word**

**Danger**

## Hazard Statements

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

## Precautionary Statements

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/ physician

## 2.3. Other hazards

PBT :- This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

vPvB :- This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Orthophosphoric acid	7664-38-2	EEC No. 231-633-2	>= 85	Skin Corr. 1B (H314) Eye Dam. 1 (H318) Met. Corr. 1 (H290)
Water	7732-18-5	231-791-2	<= 15	-

Component	Reach Registration Number
Orthophosphoric acid	01-2119485924-24

Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

#### Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

#### Ingestion

Drink plenty of water. Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Call a physician or Poison Control Center immediately.

#### Inhalation

Move to fresh air. If not breathing, give artificial respiration. Obtain medical attention.

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## Protection of First-aiders

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

## 4.2. Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

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

### Notes to Physician

Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

#### Extinguishing media which must not be used for safety reasons

None.

### 5.2. Special hazards arising from the substance or mixture

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and sources of ignition.

#### Hazardous Combustion Products

Oxides of phosphorus.

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information. Do not flush into surface water or sanitary sewer system.

### 6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Use only under a chemical fume hood. Ensure adequate ventilation. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not breathe vapors/dust. Do not ingest.

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## Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

## 7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

## 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s): **EU** - Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC on the protection of the health and safety of workers from the risks related to chemical agents at work. **UK** - EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

Component	European Union	The United Kingdom	France	Belgium	Spain
Orthophosphoric acid	TWA: 1 mg/m <sup>3</sup> 8 hr STEL: 2 mg/m <sup>3</sup> 15 min	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA / VME: 0.2 ppm (8 heures). indicative limit TWA / VME: 1 mg/m <sup>3</sup> (8 heures). indicative limit STEL / VLCT: 0.5 ppm. indicative limit STEL / VLCT: 2 mg/m <sup>3</sup> . indicative limit	TWA: 1 mg/m <sup>3</sup> 8 uren STEL: 2 mg/m <sup>3</sup> 15 minuten	STEL / VLA-EC: 2 mg/m <sup>3</sup> (15 minutos). TWA / VLA-ED: 1 mg/m <sup>3</sup> (8 horas)

Component	Italy	Germany	Portugal	The Netherlands	Finland
Orthophosphoric acid	TWA: 1 mg/m <sup>3</sup> 8 ore. Media Ponderata nel Tempo STEL: 2 mg/m <sup>3</sup> 15 minuti. Breve termine	TWA: 2 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 TWA: 2 mg/m <sup>3</sup> (8 Stunden). MAK Höhepunkt: 4 mg/m <sup>3</sup>	STEL: 3 mg/m <sup>3</sup> 15 minutos TWA: 1 mg/m <sup>3</sup> 8 horas	STEL: 2 mg/m <sup>3</sup> 15 minuten TWA: 1 mg/m <sup>3</sup> 8 uren	TWA: 1 mg/m <sup>3</sup> 8 tunteina STEL: 2 mg/m <sup>3</sup> 15 minuutteina

Component	Austria	Denmark	Switzerland	Poland	Norway
Orthophosphoric acid	MAK-KZW: 2 mg/m <sup>3</sup> 15 Minuten MAK-TMW: 1 mg/m <sup>3</sup> 8 Stunden	TWA: 1 mg/m <sup>3</sup> 8 timer	STEL: 2 mg/m <sup>3</sup> 15 Minuten TWA: 1 mg/m <sup>3</sup> 8 Stunden	STEL: 2 mg/m <sup>3</sup> 15 minutach TWA: 1 mg/m <sup>3</sup> 8 godzinach	TWA: 1 mg/m <sup>3</sup> 8 timer STEL: 1 mg/m <sup>3</sup> 15 minutter.

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Orthophosphoric acid	TWA: 1.0 mg/m <sup>3</sup> STEL : 2.0 mg/m <sup>3</sup>	TWA-GVI: 1 mg/m <sup>3</sup> 8 satima. STEL-KGVI: 2 mg/m <sup>3</sup> 15 minutama.	TWA: 1 mg/m <sup>3</sup> 8 hr. STEL: 2 mg/m <sup>3</sup> 15 min	STEL: 2.0 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> 8 hodinách. Ceiling: 2 mg/m <sup>3</sup>

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Orthophosphoric acid	TWA: 1 mg/m <sup>3</sup> 8 tundides. vapor STEL: 2 mg/m <sup>3</sup> 15 minutites. vapor	TWA: 1 mg/m <sup>3</sup> 8 hr STEL: 2 mg/m <sup>3</sup> 15 min	STEL: 3 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> 15 percekbén. CK TWA: 1 mg/m <sup>3</sup> 8 órában. AK	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> 8 klukkustundum. Ceiling: 2 mg/m <sup>3</sup>

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Orthophosphoric acid	STEL: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> IPRD STEL: 2 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> 8 Stunden STEL: 2 mg/m <sup>3</sup> 15	TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup> 15 minuti	TWA: 1 mg/m <sup>3</sup> 8 ore STEL: 2 mg/m <sup>3</sup> 15 minute

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			Minuten		
<b>Component</b>	<b>Russia</b>	<b>Slovak Republic</b>	<b>Slovenia</b>	<b>Sweden</b>	<b>Turkey</b>
Orthophosphoric acid	Skin notation MAC: 0.4 mg/m <sup>3</sup>	Ceiling: 2 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> 8 urah STEL: 2 mg/m <sup>3</sup> 15 minutah	STV: 3 mg/m <sup>3</sup> 15 minuter LLV: 1 mg/m <sup>3</sup> 8 timmar.	TWA: 1 mg/m <sup>3</sup> 8 saat STEL: 2 mg/m <sup>3</sup> 15 dakika

## Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

## Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

**Derived No Effect Level (DNEL)** See table for values

<u>Route of exposure</u>	<b>Acute effects (local)</b>	<b>Acute effects (systemic)</b>	<b>Chronic effects (local)</b>	<b>Chronic effects (systemic)</b>
Oral Dermal Inhalation			2.92 mg/m <sup>3</sup>	

**Predicted No Effect Concentration (PNEC)** No information available.

## 8.2. Exposure controls

### Engineering Measures

Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

**Eye Protection** Goggles (European standard - EN 166)  
**Hand Protection** Protective gloves

<b>Glove material</b>	<b>Breakthrough time</b>	<b>Glove thickness</b>	<b>EU standard</b>	<b>Glove comments</b>
Butyl rubber	> 480 minutes	0.36 mm	EN 374 Level 6	As tested under EN374-3 Determination of Resistance to Permeation by Chemicals
Nitrile rubber	> 480 minutes	0.1 mm		
Neoprene	> 480 minutes	0.45 mm		
Viton (R)	> 480 minutes	0.7 mm		

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

### Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

### Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

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<b>Small scale/Laboratory use</b>	<b>Recommended Filter type:</b> Particulates filter conforming to EN 143 Acid gases filter Type E Yellow conforming to EN14387
	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
	<b>Recommended half mask:-</b> Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141
	When RPE is used a face piece Fit Test should be conducted
<b>Environmental exposure controls</b>	Prevent product from entering drains. Do not allow material to contaminate ground water system.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Clear, Viscous	
<b>Physical State</b>	Liquid	
<b>Odor</b>	Odorless	
<b>Odor Threshold</b>	No data available	
<b>pH</b>	< 2	
<b>Melting Point/Range</b>	21 °C / 69.8 °F	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	158 °C / 316.4 °F	
<b>Flash Point</b>	No information available	<b>Method -</b> No information available
<b>Evaporation Rate</b>	Not applicable	
<b>Flammability (solid,gas)</b>	Not applicable	Liquid
<b>Explosion Limits</b>	Not applicable	
<b>Vapor Pressure</b>	2 hPa @ 20°C	
<b>Vapor Density</b>	3.4	(Air = 1.0)
<b>Specific Gravity / Density</b>	1.680	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Water Solubility</b>	Miscible	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Autoignition Temperature</b>	No data available	
<b>Decomposition Temperature</b>	300 °C	
<b>Viscosity</b>	3.86 mPas @ 20°C	Dynamic
<b>Explosive Properties</b>	Not applicable	
<b>Oxidizing Properties</b>	Not applicable	

### 9.2. Other information

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None known, based on information available

### 10.2. Chemical stability

Hygroscopic.

### 10.3. Possibility of hazardous reactions

**Hazardous Polymerization**  
**Hazardous Reactions**

Hazardous polymerization does not occur.  
Contact with metals may evolve flammable hydrogen gas.

### 10.4. Conditions to avoid

Incompatible products. Excess heat. Exposure to moisture.

### 10.5. Incompatible materials

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Strong oxidizing agents. Metals. Bases. Alcohols. Amines. halogenated agents.

## 10.6. Hazardous decomposition products

Oxides of phosphorus.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Product Information

##### (a) acute toxicity;

Oral

Based on available data, the classification criteria are not met

Dermal

Based on available data, the classification criteria are not met

Inhalation

Based on available data, the classification criteria are not met

#### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Orthophosphoric acid	2600 mg/kg (Rat)	LD50 = 2740 mg/kg ( Rabbit )	850 mg/m <sup>3</sup> ( Rat ) 1 h
Water	-		

(b) skin corrosion/irritation; Category 1 B

(c) serious eye damage/irritation; Category 1

##### (d) respiratory or skin sensitization;

Respiratory

Based on available data, the classification criteria are not met

Skin

Based on available data, the classification criteria are not met

(e) germ cell mutagenicity;

Based on available data, the classification criteria are not met

(f) carcinogenicity;

Based on available data, the classification criteria are not met

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity;

Based on available data, the classification criteria are not met

(h) STOT-single exposure;

Based on available data, the classification criteria are not met

(i) STOT-repeated exposure;

Based on available data, the classification criteria are not met

Target Organs

None known.

(j) aspiration hazard;

Based on available data, the classification criteria are not met

Symptoms / effects, both acute and delayed

Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicity effects

Do not empty into drains. Large amounts will affect pH and harm aquatic organisms.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Orthophosphoric acid	98 - 106 mg/L LC50 96 h	> 100 mg/L EC50 = 48 h		

### 12.2. Persistence and degradability

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**Persistence  
Degradation in sewage  
treatment plant**

Miscible with water. Persistence is unlikely, based on information available.  
Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**12.3. Bioaccumulative potential**

Bioaccumulation is unlikely

**12.4. Mobility in soil**

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

**12.5. Results of PBT and vPvB  
assessment**

PBT :- This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).  
vPvB :- This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

**12.6. Other adverse effects**

**Endocrine Disruptor Information  
Persistent Organic Pollutant  
Ozone Depletion Potential**

This product does not contain any known or suspected endocrine disruptors  
This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

**Waste from Residues / Unused  
Products**

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point.

**European Waste Catalogue (EWC)**

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

**Other Information**

Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not dispose of waste into sewer. Large amounts will affect pH and harm aquatic organisms. Solutions with low pH-value must be neutralized before discharge.

## SECTION 14: TRANSPORT INFORMATION

**IMDG/IMO**

**14.1. UN number**

UN1805

**14.2. UN proper shipping name**

PHOSPHORIC ACID SOLUTION

**14.3. Transport hazard class(es)**

8

**14.4. Packing group**

III

**ADR**

**14.1. UN number**

UN1805

**14.2. UN proper shipping name**

PHOSPHORIC ACID, SOLUTION

**14.3. Transport hazard class(es)**

8

**14.4. Packing group**

III

**IATA**

**14.1. UN number**

UN1805

**14.2. UN proper shipping name**

PHOSPHORIC ACID, SOLUTION

**14.3. Transport hazard class(es)**

8

**14.4. Packing group**

III

**14.5. Environmental hazards**

No hazards identified

**14.6. Special precautions for user**

No special precautions required



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**14.7. Transport in bulk according to** Not applicable, packaged goods  
**Annex II of MARPOL73/78 and the**  
**IBC Code**

## SECTION 15: REGULATORY INFORMATION

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

#### International Inventories

X = listed

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Orthophosphoric acid	231-633-2	-		X	X	-	X	X	X	X	X
Water	231-791-2	-		X	X	-	X	-	X	X	X

#### National Regulations

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Orthophosphoric acid	WGK 1	

Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment.

Take note of Dir 94/33/EC on the protection of young people at work

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

### 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

#### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

#### Key literature references and sources for data

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**PNEC** - Predicted No Effect Concentration

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - Volatile Organic Compounds

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**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

<b>Physical hazards</b>	On basis of test data
<b>Health Hazards</b>	Bridging principle "Dilution" Calculation method
<b>Environmental hazards</b>	Bridging principle "Dilution" Calculation method

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

<b>Creation Date</b>	Oct-2013
<b>Next Revision Date</b>	Oct-2023
<b>Revision Summary</b>	SDS section 1 updated and update of Format.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**