

# MSDS

(Material Safety Data Sheet)

Chemical Name : PERESEAL<sup>®</sup> N Neutral Seal      MSDS No. : P 008  
Date of Preparation : January 2014      Revision No. : #1

## Section 1. Chemical Product and Company Identification

<b>Product Name</b>	: PERESEAL <sup>®</sup> N Neutral Seal	<b>Emergency Telephone Number:</b> +65 6558 6388
<b>Supplier/Manufacturer</b>	: PFE Technologies Pte Ltd	<b>Telephone number for Information:</b> +65 6558 6388
<b>Address</b>	: 9 Gul Street 4 Singapore 629238	
<b>Email</b>	: info@pfetec.sg	<b>Fax Number:</b> +65 6558 7310
<b>Website</b>	: www.pfetec.sg	

## Section 2. Composition / Information on Ingredients

Hazardous Ingredients	CAS No. EINECS No.	Conc. %	Hazardous Symbol	Risks (R-phrases)
Butane-2-on-O,O',O'' – (Methylsilylidyn)trioxim (*)	17689-779 241-677-4	<5	C	14-13 (1)

(1) For R-phrases in full: see heading 16

## Section 3. Hazards Identification

- May cause sensitization by skin contact

## Section 4. First-aid Measures

<b>Eye Contact</b>	:	Rinse immediately with plenty of water Seek medical advice
<b>Skin Contact</b>	:	Rinse immediately with plenty of water If irritation persists: seek medical advice
<b>Inhalation</b>	:	Remove the victim into fresh air Seek medical advice
<b>Ingestion</b>	:	Never give water to an unconscious person Do not induce vomiting Seek medical advice

## Section 5. Fire-Fighting Measures

<b>Extinguishing Media</b>		
<b>Suitable</b>	:	All standard extinguishing media are suitable. This is a waterborne product and does not support combustion in the uncured state. The product does not contain combustible organic components which may yield smoke containing hazardous decomposition products.
<b>Unsuitable</b>	:	None

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## Section 6. Accidental Release Measures

**Personal Protection/Precaution** : **See heading 8.1/8.3/10.3**  
**Environmental Precaution** : Contain leaking substance, pump over in suitable containers  
**Method of Cleaning up** : Solid spill: shovel in (to) closing drums. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling

## Section 7. Handling and Storage

**Handling** : Observe normal hygiene standards  
**Storage** : Keep container tightly closed in cool, dry and ventilated area.  
**Storage Temperature** : Room temperature  
**Quantity limit** : N.D.      kg  
**Storage life** : 365      days  
**Materials for packaging Suitable** : synthetic material  
**Specific uses** : **See information supplied by the manufacturer**

## Section 8. Exposure Controls / Personal Protection

### Exposure Limit Values

<b>TLV-TWA</b>	:	- mg/m <sup>3</sup>	ppm
<b>TLV-STEL</b>	:	- mg/m <sup>3</sup>	ppm
<b>TLV-Ceiling</b>	:	- mg/m <sup>3</sup>	ppm
<b>OES-LTEL</b>	:	- mg/m <sup>3</sup>	ppm
<b>OES-STEL</b>	:	- mg/m <sup>3</sup>	ppm
<b>MAK</b>	:	- mg/m <sup>3</sup>	ppm
<b>TRK</b>	:	- mg/m <sup>3</sup>	ppm
<b>MAC-TGG 8 h</b>	:	- mg/m <sup>3</sup>	
<b>MAC-TGG 15 min.</b>	:	- mg/m <sup>3</sup>	
<b>MAC-Ceiling</b>	:	- mg/m <sup>3</sup>	
<b>VME-8 h</b>	:	- mg/m <sup>3</sup>	ppm
<b>VLE-15 min.</b>	:	- mg/m <sup>3</sup>	ppm
<b>GWBB-8 h</b>	:	- mg/m <sup>3</sup>	ppm
<b>GWK-15 min.</b>	:	- mg/m <sup>3</sup>	ppm
<b>Momentary value</b>	:	- mg/m <sup>3</sup>	ppm
<b>EC</b>	:	- mg/m <sup>3</sup>	ppm
<b>EC-STEL</b>	:	- mg/m <sup>3</sup>	ppm

### Exposure Controls

**Occupational Exposure Controls** : Use only in well-ventilated area  
**Environmental Exposure Controls** : see Heading 13

### Personal Protections

**Respiratory Protection** : Respiratory protection required in normal conditions of use  
**Hand Protections** : Gloves  
**Eye Protections** : Safety glasses  
**Skin Protection** : Suitable protective clothing

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## Section 9. Physical and Chemical Properties

### General Information

Appearance (at 20°C)	: Paste
Odour	: Odourless
Colour	: Variable in Color

### Important Health, Safety and Environmental Information

pH value	: N.D.	
Boiling point/boiling range	: N.D.	°C
Flashpoint	: N.D.	°C
Explosion limits	: N.D.	Vol%
Vapour pressure (at 20°C)	: N.D.	hPa
Vapour pressure (at 50°C)	: N.D.	hPa
Relative density (at 20°C)	: 1.0 – 1.3	g/cm <sup>3</sup>
Water solubility	: insoluble	
Soluble in	: organic solvent	
Relative vapour density	: N.D.	
Viscosity (at 20°C)	: N.D.	Pa.s
Partition coefficient n-octanol/water	: N.D.	
Evaporation rate		
ratio to butyl acetate	: N.D.	
ratio to ether	: N.D.	

### Other Information

Melting point/melting range	: N.D.	°C
Auto-ignition point	: N.D.	°C
Saturation concentration	: N.D.	g/m <sup>3</sup>

## Section 10. Stability and Reactivity

<b>Conditions to Avoid/Reactivity</b>	: Stable under normal conditions
<b>Materials to Avoid</b>	: Heat sources, oxidizing agent
<b>Hazardous Decomposition Products</b>	: On burning: release of e.g. Carbon monoxide and Carbon dioxide

## Section 11. Toxicological Information

### Acute Toxicity

<b>LD50 oral rat</b>	: N.D.	mg/kg
<b>LD50 dermal rabbit</b>	: N.D.	mg/kg
<b>LD50 dermal rabbit</b>	: N.D.	mg/kg
<b>LC50 inhalation rat</b>	: N.D.	mg/l/4h
<b>LC50 inhalation rat</b>	: N.D.	ppm/4h

### Chronic toxicity

<b>EC carc. cat.</b>	: not listed
<b>EC muta. cat.</b>	: not listed
<b>EC repr. cat.</b>	: not listed

<b>Carcinogenicity (TLV)</b>	: not listed
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**Carcinogenicity (MAC)**  
**Carcinogenicity (VME)** : not listed  
**Carcinogenicity (GWBB)** : not listed

**Carcinogenicity (MAK)** : not listed  
**Mutagenicity (MAK)** : not listed  
**Teratogenicity (MAK)** : not listed

**IARC classification** : not listed

**Routes of Exposure** : Ingestion, inhalation, eye and skin  
**Acute Effects/Symptoms** : Slight irritation  
**Chronic Effects** : May cause sensitization by skin contact  
No certainty about human carcinogenic

## Section 12. Ecological Information

**Ecotoxicity** : No data available  
**Mobility** : Volatile organic compounds (VOC): 4%  
Insoluble in water  
For other physiochemical properties see **HEADING 9**

**Persistence and Degradability**

<b>Biodegradation BOD<sub>5</sub></b>	:	N.D.	%ThOD
<b>Water</b>	:	No data available	
<b>Soil</b>	:	T 1/2	N.D. days

**Bioaccumulative Potential**

:	log P <sub>ow</sub>	N.D.
:	BCF	N.D.

**Other Adverse Effects**

:	WGK	1
	Effects on the ozone layer	Not dangerous on ozone layer
	Greenhouse effect	No data available
	Effect on waste water purification	No data available

## Section 13. Disposal Considerations on Waste Materials

**Disposal Methods** : Recycle/reuse

## Section 14. Transport Information

### Classification of the substance in compliance with UN Recommendations

**UN-number** : --  
**CLASS** : NOT SUBJECT  
**SUB RISKS** :  
**PACKING** :  
**PROPER SHIPPING NAME** :

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## ADR (transport by road)

**CLASS** : NOT SUBJECT  
**PACKING** :  
**DANGER LABEL TANKS** :  
**DANGER LABEL PACKAGES** :

## RID (transport by rail)

**CLASS** : NOT SUBJECT  
**PACKING** :  
**DANGER LABEL TANKS** :  
**DANGER LABEL PACKAGES** :

## ADNR (transport by inland waterways)

**CLASS** : NOT SUBJECT  
**PACKING** :  
**DANGER LABEL TANKS** :  
**DANGER LABEL PACKAGES** :

## IMDG (maritime transport)

**CLASS** : NOT SUBJECT  
**SUB RISKS** :  
**PACKING** :  
**MFAG** :  
**EMS** :  
**MARINE POLLUTANT** :

## ICAO (air transport)

**CLASS** : NOT SUBJECT  
**SUB RISKS** :  
**PACKING** :  
**PACKING INSTRUCTIONS PASSENGER** :  
**AIRCRAFT**  
**PACKING INSTRUCTIONS CARGO AIRCRAFT** :

**Special precautions in connection with transport** : not restricted for any mode of international transport

## Section 15. Regulatory Information

Labeling not required according to available information

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## Section 16. Other Information

The information provided on this MSDS is correct to the best of our knowledge and information at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

**N.A.** = NOT APPLICABLE  
**N.D.** = NOT DETERMINED  
**\*** = INTERNAL CLASSIFICATION

### Exposure limits:

**TLV** : Threshold Limit Value - ACGIH US 2000  
**OES** : Occupational Exposure Standards - United Kingdom 1999  
**MEL** : Maximum Exposure Limits - United Kingdom 1999  
**MAK** : Maximale Arbeitsplatzkonzentrationen - Germany 2001  
**TRK** : Technische Richtkonzentrationen - Germany 2001  
**MAC** : Maximale aanvaarde concentratie - the Netherlands 2002  
**VME** : Valeurs limites de Moyenne d'Exposition - France 1999  
**VLE** : Valeurs limites d'Exposition à court terme - France 1999  
**GWBB** : Grenswaarde beroepsmatige blootstelling - Belgium 1998  
**GWK** : Grenswaarde kortstondige blootstelling - Belgium 1998  
**EC** : Indicative occupational exposure limit values - directive 2000/39/EC

### Chronic toxicity:

**K** : List of the carcinogenic substances and processes - the Netherlands 2002