

MSDS

(Material Safety Data Sheet)

Chemical Name : PERESEAL[®] MP
Date of Preparation : August 2012
MSDS No. : P 004
Revision No. : #2

Section 1. Chemical Product and Company Identification

Product Name : PERESEAL [®] MP	Emergency Telephone Number: +65 6558 6388
Supplier/Manufacturer : PFE Technologies Pte Ltd	Telephone number for Information: +65 6558 6388
Address : 9 Gul Street 4 Singapore 629238	Fax Number: +65 6558 7310
Email : info@pfetec.com	
Website : www.pfetec.com	

Section 2. Composition / Information on Ingredients

Hazardous Ingredients	CAS No. EINECS No.	Conc. %	Hazardous Symbol	Risks (R-phrases)
Triacetoxymethylsilane	17689-77-9 241-677-4	<5	C	14-13 (1)

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

Section 3. Hazards Identification

- No hazard classification

Section 4. First-aid Measures

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

Section 5. Fire-Fighting Measures

Extinguishing Media	:	
Suitable	:	Polyvalent foam, Dry chemical powder Carbon dioxide
Unsuitable	:	None
Special Exposure Hazards	:	Not easily combustible On Burning: release of carbon monoxide and carbon dioxide
Instructions	:	No specific firefighting instructions required
Special Protective Equipment for Firefighters	:	Heat/fire exposure: compressed air/oxygen apparatus

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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
Remove contaminated surfaces with an excess of water
Wash clothing and equipment after handling

Storage : Keep container tightly closed in cool, dry and ventilated area.
Keep away from: heat sources, oxidizing agents

Storage Temperature : Room temperature

Quantity limit : N.D. kg

Storage life : 365 days

Materials for packaging Suitable : plastic

Specific uses : **See information supplied by the manufacturer**

Section 8. Exposure Controls / Personal Protection

Exposure Limit Values

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

Exposure Controls

Occupational Exposure Controls : Use only in well-ventilated area

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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

Section 9. Physical and Chemical Properties

General Information

Appearance (at 20°C) : Paste
Odour : Vinegar
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/cm³
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/m³

Section 10. Stability and Reactivity

Conditions to Avoid/Reactivity : Stable under normal conditions
Materials to Avoid : None
Hazardous Decomposition Products : On burning: release of e.g. Carbon monoxide and Carbon dioxide

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Section 11. Toxicological Information

Acute Toxicity

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

Chronic toxicity

EC carc. cat. : not listed
EC muta. cat. : not listed
EC repr. cat. : not listed

Carcinogenicity (TLV) : not listed
Carcinogenicity (MAC) : not listed
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 : Practically non-toxic

Chronic Effects : None known

Section 12. Ecological Information

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

Persistence and Degradability

Biodegradation BOD₅ : N.D. %ThOD
Water : No data available
Soil : T ½ N.D. days

Bioaccumulative Potential

: log P_{ow} 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

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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 :

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

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Section 15. Regulatory Information

Labeling not required according to available information

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