

1. Identification of substance/mixture and company/undertaking

Multiseal FS

Use: Antifreeze
Identified use: none
Mode of action: See product information
Undertaking: Unipak A/S
Marktoften 3c
8464 Galten/Denmark
Tel.: +45 86 26 11 77
Fax: +45 86 26 09 59
Website: www.unipak.dk
E-mail: sales@unipak.dk

Undertaking's emergency
telephone number: +45 82 12 12 12 (day and night)
Responsible person: Schroeder@chemiebuero.de

2. Hazards identification

Physicochemical hazards: See Chapter 10
Human health hazards: See Chapter 11
Environmental hazards: See Chapter 12
Other hazards: none
Hazard symbols: none
R-phrases: none

3. Composition/Information on ingredients

Contents [%] Component

90 - < 1001,2 - Propanediol

CAS: 57-55-6, EINECS/ELINCS: 200-338-0 EU-INDEX: ECB No.:-

GHS/CLP: -

EEC: , R

Comment on components: No dangerous ingredients
SVHC List (Candidate List of Substances of Very High Concern for authorisation): contains none or less than 0,1% of the substances from the list.

4. First-aid measures

General advice: Change contaminated clothing.
On inhalation: Provide fresh air.
On skin contact: If the substance spills onto the skin, wash immediately with soap and water.
Seek medical attention in case of persistent skin irritation.
In case of contact with eyes: If the substance gets into the eyes, flush immediately with plenty of water and contact a doctor.
If swallowed: Medical treatment necessary.
Rinse the mouth and drink plenty of water.
Let the injured vomit, if he is fully conscious.
Advice to medical practitioner: Symptomatic treatment.

5. Firefighting measures

Suitable extinguishing agents: Alcohol resistant foam
Carbonic acid
Extinguishing powder
Water spray

Unsuitable extinguishants: Full water jet.

Particular exposure risks deriving from actual product or combustion products: Risk of formation of toxic pyrolysis products.
Carbon monoxide (CO)

Special protective equipment for firefighting: Do not inhale explosions- and fire gases
Use supplied air breathing apparatus.

Other information: Exposed containers are cooled off with waterspray
Fire residues and contaminated extinguishing water must be disposed of in accordance with local authority regulations.

6. Accidental release measures

Person-related precautions: Ensure plentiful ventilation.
Particular danger of slipping if the product has ran out/is spilled
Use personal protective equipment.

Environmental protection rules: Prevent spreading of spillages (e.g. by containing spills mechanically or with oil barriers).
Must not enter drainage system/surface water/ground water.

Methods for cleaning/mopping up: Remove with liquid-binding material (e.g. sand, sawdust, universal binder, diatomite).
The removed material should be disposed of in accordance with regulations.

7. Handling and storage

Guidelines for safe handling: Use only in well ventilated areas.
Exhaustion at the object is necessary.

Advice for fire and explosion protection: Keep away from ignition sources – smoking forbidden.
Vapours combined with air can lead to an exploding mixture.

Requirements for storage areas and containers: Project solvent persistent and impermeable floors
Store only in original containers.

Advice for combined storage: Must not be stored together with oxidants
Must not be stored together with acids.

Further information on storage conditions: The container must be kept tightly closed.
Stored cold. Stored dry.
Protect against heating/overheating
Recommended storing temperature: <40°C.

8. Exposure controls/personal protection

Further advice on design of technical plant:	Ensure plentiful ventilation at the workplace
Ingredients with work-hygiene threshold limits:	Not applicable
Breathing protection:	Breathing protection in case of aerosol or mist formation. Short-term filter mask, filter P2.
Hand protection:	These indications are recommendations. For further information please contact glove supplier. For full contact: Butyl rubber, >480 min (EN 374). Nitril, >480 min (EN 374). Polychloroprene, >480 min (EN 374). For splash contact: Butyl rubber, >120 min (EN 374). Nitril, >120 min (EN 374). Polychloroprene, >120 min (EN 374).
Eye protection:	Safety glasses.
Body protection:	Not applicable
General protective measures:	Avoid contact with eyes and skin. Avoid inhalation of vapours. Protective overalls must be selected specifically for the workplace, depending on the concentration and amount of toxic substances to be handled. Information on the overall's resistance to chemicals must be obtained from the individual supplier.
Hygiene precautions:	Wash hands before breaks and after work. Do not eat, drink, smoke or consume snuff during work. Use skin cream for preventive effect.
Limitation and monitoring of environmental impacts:	Not determined

9. Physical and chemical properties:

Form:	viscous
Colour:	light blue
Odour:	odour-free
pH value:	not determined
pH value [1%]:	not determined
Boiling point [°C]:	185-190
Flash point [°C]:	app. 109
Flammability [°C]:	app. 370
Lower explosive limit:	2,4 Vol. %
Upper explosive limit:	12,6 Vol. %
Fire intensifying properties:	no
Vapour pressure [kPa]:	not determined
Mass density [g/ml]:	approx. 1.04 (20°C)
Specific weight [kg/m³]:	not applicable
Solubility in water:	mixable
n-Ofanol/water distribution	

coefficient [log Pow]: not determined
Viscosity: 60 mPas (20°C)
Vapour density
compared to air: not determined
Evaporation rate: not determined
Melting point [°C]: -37
Autoignition [°C]: app. 370
Decomposition point [°C]: not determined

10. Stability and reactivity

Hazardous reactions: Reacts with acid
Reacts with strong oxidants
Reacts with reductants
The product is hygroscopic

Hazardous decomposition products: No known hazardous breakdown products.

11. Toxicological information

Acute oral toxicity: LD50: >2000 mg/kg Rat
Acute dermal toxicity: LD50: >5000 mg/kg Rabbit
Acute inhalation toxicity: not determined
Eye irritation: not determined
Skin irritation: not irritant
Sensitisation: not sensitizing
Subacute toxicity: not determined
Chronic toxicity: not determined
Mutagenicity: not determined
Reproductive toxicity: not determined
Carcinogenicity: not determined
Practical experience: None
General comments: Classification made by the calculation method of the preparation directive
No known toxicological data

12. Ecological information

Toxicity to fish: LC50(96h): >4000 mg/l (Pimephales promelas)
Toxicity to daphnia: EC50(48h): >4000 mg/l (Daphnia)
Behaviour in environment: not determined
Behaviour in sewage works: not determined
Toxicity to bacteria: not determined
Biological degradability: The product is a little degradable
COD: not determined
BOD 5: not determined
AOX advice: not applicable
2006/11/EC: not applicable
General advice: Classification made by the calculation method of the preparation directive
Do not allow the product uncontrolled into the environment and the drainage

13. Disposal considerations

Product: Ask the producer for possible reuse
Uncleaned packaging: Uncontaminated packaging may be taken to recycling centres.
Packaging which cannot be cleaned is regarded as waste and disposed of as for contents.

European Waste
Catalogue (recommended): 070799

14. Transport information

ADR classification: NOT CLASSIFIED AS "DANGEROUS GOODS"
IMDR classification: NOT CLASSIFIED AS "DANGEROUS GOODS"
IATA classification: NOT CLASSIFIED AS "DANGEROUS GOODS"

15. Regulatory information

Exposure scenario: not determined
Chemical safety assessment: not determined
Labelling: Product not liable for labelling under EU guidelines
Hazard symbols: None
Component: -
R-phrases: None
S-phrases: None
Special labelling: not applicable
EEC REGULATIONS: 1967/548 (2008/58, 30. ATP/31. ATP); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC)
TRANSPORT REGULATIONS: ADR (2009); IMDG Code (34th Amdt.); IATA-DGR (2010).
NATIONAL REGULATIONS (DK):
Approval, SECTION VII: not applicable
Restrictions, SECTION VIII: not applicable
- Code number (1993/2001): 00-1

16. Other information

Maintain employment
restrictions for persons: not applicable
VOC (1991/13/EC): 96%

All the above information is based on our current knowledge but does not constitute a guarantee of product properties and does not create any contractual relationship.
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