



EU Safety Data Sheet

Version 4.0
Updated: 29.02.2016

According to EC Regulations No. 453/2010 (REACH), 1272/2008 (CLP) & 453/2010

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

1.1. Product identifier

Trade name SURFZYME PENETRANT
Product code #50100-0000; #50100-0025
REACH registration No. Not applicable

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

Identified use(s) Use for "hard to clean surfaces" and paint and ink removal
Uses advised against As a general purpose cleaning product

1.3. Details of the supplier of the safety data sheet

Supplier name: ZYMO Europe Inc.
Supplier address: ZYMO Europe Inc.
P.O Box 9240
Fleming Island
FL 32006
United States of America
Supplier telephone: +44 (0) 7504 150955
Email: admin@zymo.com

1.4. Emergency telephone number

Emergency phone No. +44 (0) 7779 781813 (GMT English spoken, Mon-Fri – 08:00 – 17:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Regulation (EC) No.1272/2008 (CLP)

2.2.2. Directives 67/548/EEC, 1999/45/EC

2.2. Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

CLP Hazard Pictograms: Not applicable

Signal Word(s): No Signal Word

Hazard Statements: Not applicable

Precautionary Statements: Not classified for supply, however, optional precautionary statements have been applied

P270 Do not eat, drink or smoke when using this product
P280 Wear protective gloves and eye protection
P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor/ physician if you feel unwell
P302 + P352 IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.



EU Safety Data Sheet

Version 4.0
Updated: 29.02.2016

P501 Remove contact lenses, if present and easy to do. Continue rinsing
Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)	Not applicable
R-phrases	Not applicable
S-phrases	Not classified for supply, however, optional safety phrases have been applied
S20/21	When using do not eat, drink or smoke
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S37/39	Wear suitable gloves and eye protection
S59	Refer to manufacturer/ supplier for information on recovery/recycling

2.3. Other hazards

PBT
vPvB

SECTION 3: Composition/information on ingredients

3.1. Substance

EC Classification No 1272/2008

No hazardous materials are present at a concentration threshold that triggers a classification under this regulation

EEC Classification No 67/548/EEC

No hazardous materials are present at a concentration threshold that triggers a classification under this regulation

SECTION 4: First aid measures

4.1. Description of first aid measures

4.1.1. First aid instructions.

If inhaled:	Move person into fresh air, if not breathing, give artificial respiration and consult a physician.
If on skin (or hair):	Wash skin with soap and water until any soapy sensation subsides, treat dry skin with a topical moisturizer, seek medical attention if any irritation persists
If in eyes:	Immediately flush the eyes with plenty of water for up to fifteen minutes. Remove any contact lenses and open eyes wide apart to wash. Seek medical attention and show this document to the medical practitioner if irritation persists



EU Safety Data Sheet

Version 4.0
Updated: 29.02.2016

If swallowed: Rinse out the mouth and give the victim water to drink. Do not induce vomiting, but if vomiting occurs spontaneously keep the airways clear. Seek medical attention if feeling unwell

Other first aid advice: Wash any affected areas with soap and water
Use of milk or an eye-wash solution will aid in cleaning product from eyes

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

If inhaled: Inhalation can occur through the generation of aerosols, though is an unlikely exposure route. On exposure respiratory irritation, sore throat and coughing may occur

If on skin (or hair): Skin exposure may cause slight redness, irritation or dryness, especially to already damaged skin. Irritation effects may become more severe with chronic exposure or where contaminated skin is left unwashed

If in eyes: Exposure to the eyes may result in pain and tearing and can cause damage if not washed immediately

If swallowed: This product is expected to have low oral toxicity but may cause irritation to digestive tract

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

Medical treatment: Not applicable

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Extinguish with alcohol resistant foam, carbon dioxide, dry powder

Unsuitable extinguishing media: Water spray or jet, water may float the solvent and spread the fire

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Oxides of carbon

Other special hazards during fire: Not applicable

5.3. Advice for firefighters

Protective actions during firefighting: No special instructions

Special protective equipment for firefighters: Use self-contained breathing apparatus

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Non-emergency personnel PPE See section 8.2

Emergency responders PPE See section 8.2

Controlling risks from accidental release: Use sand or other coarse absorbent to minimise slip hazards



EU Safety Data Sheet

Version 4.0
Updated: 29.02.2016

Emergency procedures: Evacuate personnel to safe areas

6.2. Environmental precautions

Keep accidental releases away from: Avoid letting the product enter drains, surface water, soil and open ground

6.3. Methods and material for containment and cleaning up

Containing a spill: Collect spillage or absorb with a suitable absorbent material. Collect in containers and seal securely

Cleaning up a spill Use a squeegee and absorbent material to clean a spill as much as possible, the area should then be washed with water to remove remaining residues

Other information on spill handling: Use of detergents when washing will be necessary as this product is not miscible in water. Contaminated surfaces will be highly slippery.

6.4. Reference to other sections

References to other sections: See section 8.2 for personal protective equipment. See section 13.1 for disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Safe handling recommendations: Avoid contact with skin and eyes, note that certain types of glove may swell and lose strength through extended contact with this product. This product is a solvent and may remove written and adhesive labels

Handling incompatibles: None known

Reducing environmental risk: Ensure adequate spill kits and drain protection in the vicinity of this product

Occupational hygiene advice Wash hands after use and before eating and drinking. Remove contaminated clothing and PPE before leaving the entering eating spaces

7.2. Conditions for safe storage, including any incompatibilities

Safe storage: managing risks during storage:

Explosive atmospheres formed during storage: Not applicable

Corrosive conditions during storage: Not applicable

Flammability hazards during storage: Not applicable

Incompatible substances or mixtures: Not applicable

Evaporative conditions: Not applicable

Potential ignition sources, including electrical equipment: Not applicable



EU Safety Data Sheet

Version 4.0
Updated: 29.02.2016

Safe storage: controlling effects of ambient conditions:

Weather conditions:	Keep out of rain
Ambient pressure:	Not applicable
Temperature:	No specific temperature requirements
Sunlight:	Store out of direct sunlight
Humidity:	Not applicable
Vibration:	Not applicable

Safe storage: maintaining the integrity of the product:

Stabilisers:	Stabilisers are not used in this product
Antioxidants:	Antioxidants are not used in this product

Safe storage: other advice:

Ventilation requirements for storage:	Not applicable
Specific designs for storage rooms or vessels:	Not applicable
Quantity limits under storage conditions:	Not applicable
Suitable packaging for the substance:	Not applicable

7.3. Specific end use(s)

Uses:	Use for "hard to clean surfaces" and paint and ink removal
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure limits:	Not applicable
8.1.2 Biological Limit Values:	Not applicable
8.1.3 Current recommended monitoring procedures:	Not applicable
8.1.4 Air contaminants formed when using the product as intended:	Not applicable
8.1.5. PNECs and DNELs	Not applicable

8.2. Exposure controls

8.2.1. Appropriate engineering controls:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the day. Ensure adequate ventilation
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8.2.2. Personal Protection Equipment



EU Safety Data Sheet

Version 4.0
Updated: 29.02.2016

Eye protection:	Use splash goggles that have been tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU)
Face protection:	Additional face protection should not be necessary for normal product use
Hand protection:	<p>For long-term exposure use butyl rubber or other gloves that are solvent resistant with a minimum breakthrough time of 480 minutes and a minimum thickness of 0.7 mm</p> <p>For short term exposure use nitrile gloves with a minimum breakthrough time of 30 minutes and a minimum thickness of 0.4 mm. Note that nitrile gloves will swell and degrade with exposure to this product and should not be used for longer term exposure. Use gloves of standard EN374</p>
Other skin protection	When working this product for long periods A rubber apron and rubber footwear are recommended. Non-absorbent and easy to remove clothing is recommended to minimise the risk of personal exposure
Respiratory protection	Respiratory equipment should be worn if ventilation is insufficient and risk assessment indicate additional protection is required. Masks meeting EN371 standards would be recommended
Thermal hazards	Not applicable
8.2.3. Environmental exposure controls	Avoid release of any product effluent to drains or surface water

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Clear liquid
Physical state:	Liquid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Data not available
pH:	5 – 6 as a 1% solution in deionised water
Melting point:	-75°C
Freezing point:	Data not available
Initial boiling point:	215.6°C
Boiling range:	Data not available
Flash point:	98°C



EU Safety Data Sheet

Version 4.0
Updated: 29.02.2016

Flash point method:	Data not available
Evaporation rate:	Data not available
Flammability (if solid or gas):	Data not available
Upper and lower flammability or explosive limits:	Data not available
Vapour pressure:	0.063 hPa at 20°C
Vapour density:	Data not available
Relative density:	1.055 g mL ⁻¹ at 20°C
Solubility(ies)	25 g L ⁻¹ in water Completely miscible in organic polar solvents Completely miscible in aromatic hydrocarbons
Partition coefficient: n-octanol/water	Data not available
Auto-ignition temperature	430°C
Decomposition temperature	Data not available
Viscosity	Data not available
Explosive properties	Data not available
Oxidising properties	Data not available
9.2. Other information	Data not available

SECTION 10: Stability and reactivity

10.1. Reactivity	No specific reactivity hazards associated with this product
10.2. Chemical stability	Stable for two years at ambient conditions
10.3. Possibility of hazardous reactions	Product not known to react and/or polymerise in a hazardous way
10.4. Conditions to avoid	Avoid contact with strong oxidising agents, alkalis and acids
10.5. Incompatible materials	Avoid contact with strong oxidising agents, alkalis and acids
10.6. Hazardous decomposition products	No known hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Oral (Rat) – LD50 >2,000 mg/kg bodyweight
Skin corrosion/irritation	Dermal (Rat) – LD50 >2,000 mg/kg bodyweight
Serious eye damage/irritation	Ocular (Rabbit) – No eye irritation
Respiratory or skin sensitisation	Lymph node assay (Mouse) – Non sensitising



EU Safety Data Sheet

Version 4.0
Updated: 29.02.2016

	(unpublished internal reports)
Germ cell mutagenicity	Data not available
Carcinogenicity	Data not available
Reproductive toxicity	Oral (Rat) – according to OECD method 422 No impairment of fertility has been observed (unpublished internal reports)
STOT-repeated exposure;	Oral (Rat) – 28 – 45 days, NOAEL: 300 mg/kg bodyweight No systematic toxicity observed (unpublished internal reports)
11.2. Other information	No other information

SECTION 12: Ecological information

12.1. Toxicity

Species	Test	Value
Rainbow trout (<i>Oncorhynchus mykiss</i>)	LC50 96H	56 mg/L
Water flea (<i>Daphnia magna</i>)	EC50 48H	>100 mg/L
Algae (<i>Pseudokirchnerella subcapitata</i>)	EC50 72H	>60 mg/L

12.2. Persistence and degradability	74% - 28 days Method: OECD 301 (unpublished internal reports)
12.3. Bioaccumulative potential	Not potentially bioaccumulative (unpublished internal reports)
12.4. Mobility in soil	Log Koc: < 1.25 Highly mobile in soils (unpublished internal reports)
12.5. Results of PBT and vPvB assessment	Data not available
12.6. Other adverse effects	
Environmental fate	Not applicable
Photochemical ozone creation potential	Not applicable
Ozone depletion potential	Not applicable
Endocrine disrupting potential	Not applicable
Global warming potential	Not applicable

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment containers to be used for product include bags or sacks, polythene and woven polypropylene are acceptable



SECTION 16: Other information

a) Changes made to SDS:

Section 1; New product name and code, change in address, email and telephone number
Section 2; Slight reformatting
Section 7; Amended "Uses"

b) Key (or legend)

LD50	Lethal Dosage affecting 50% of sample population
LC50	Lethal Concentration affecting 50% of sample population
EC50	Effective Concentration affecting 50% of sample population
NOAEL	No Observed Adverse Effect Level
OECD	Organisation for Economic Co-operation and Development

c) Literature references

Some physical properties reported from direct laboratory testing performed at Grotech Production Ltd
Some properties gathered from supplier SDS of principal component

d) Details of relevant hazard information

P270	Do not eat, drink or smoke when using this product
P280	Wear protective gloves and eye protection
P301+P312	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell
P302+P352	IF ON SKIN: Wash with plenty of soap and water
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S37/39	Wear suitable gloves and eye protection
S59	Refer to manufacturer/ supplier for information on recovery/recycling

e) Appropriate training for workers

Training with breathing apparatus, spillage handling and chemical handling is recommended

f) Classification method:

CLP classification, CHIP classification