

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

1.1. Product identifier

Product form : Mixture
 Product name : PANTHER
 Product code : FC10
 Type of product : Detergent, Waxes and Polymers
 Product group : Mixture

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use
 Industrial/Professional use spec : Industrial
 For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

The Clean Machine Direct Ltd,
 Unit 11, Stafford Park 12,
 Telford, Shropshire, TF3 3BJ
 01952 418 000 | info@thecleanmachine.co.uk |
 cleanmachine.direct

1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Precautionary statements (CLP) : P102 - Keep out of reach of children.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 EUH-statements : EUH208 - Contains METHYLCHLOROISOTHIAZOLINONE (AND) METHYLISOTHIAZOLINONE. May produce an allergic reaction.
 EUH210 - Safety data sheet available on request.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	2-(2-ethoxyethoxy)ethanol (111-90-0)

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Component	
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	2-(2-ethoxyethoxy)ethanol (111-90-0)

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1,2-ethanediol substance with national workplace exposure limit(s) (BE, BG, CZ, DE, DK, EE, ES, FI, FR, GB, GI, GR, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, IS, NO, CH, TR)	CAS-no: 107-21-1 Einecs nr: 203-473-3 EG annex nr: 603-027-00-1 REACH-no: 01-2119456816-28	1 – 3	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) STOT RE 2, H373
2-(2-ethoxyethoxy)ethanol substance with national workplace exposure limit(s) (AT)	CAS-no: 111-90-0 Einecs nr: 203-919-7 REACH-no: 01-2119475105-42	1 – 3	Not classified
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) substance with national workplace exposure limit(s) (CH)	CAS-no: 55965-84-9 EG annex nr: 613-167-00-5 REACH-no: 01-2120764691-48	< 1	Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Dermal), H310 (ATE=78 mg/kg bodyweight) Acute Tox. 3 (Oral), H301 (ATE=64 mg/kg bodyweight) Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) EUH071

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS-no: 55965-84-9 EG annex nr: 613-167-00-5 REACH-no: 01-2120764691-48	(0.0015 ≤ C ≤ 100) Skin Sens. 1A, H317 (0.06 ≤ C < 0.6) Eye Irrit. 2, H319 (0.06 ≤ C < 0.6) Skin Irrit. 2, H315 (0.6 ≤ C ≤ 100) Eye Dam. 1, H318 (0.6 ≤ C ≤ 100) Skin Corr. 1C, H314

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation

: Allow affected person to breathe fresh air. Allow the victim to rest.

Skin contact

: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

Eye contact

: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

Ingestion

: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Acute effects skin

: mild skin irritation.

Acute effects eyes

: May cause eye irritation. Redness.

Acute effects oral route

: May cause irritation to the digestive tract.

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

No additional information available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Section 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed.

Incompatible products : Strong bases. Strong acids.

Packaging materials : polyethylene. stainless steel.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

1,2-ethanediol (107-21-1)	
Ireland - Occupational Exposure Limits	
OEL TWA	52 mg/m ³
United Kingdom - Occupational Exposure Limits	
Local name	Ethane-1,2-diol
WEL TWA (OEL TWA)	10 mg/m ³ particulate
	52 mg/m ³ vapour
	20 ppm vapour
WEL STEL (OEL STEL)	104 mg/m ³ vapour
	40 ppm vapour
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

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8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses. Chemical goggles or safety glasses

8.2.2.2. Skin protection

Hand protection:

Wear protective gloves

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Pink.
Physical state/form	: Liquid.
Odour	: Floral.
Odour threshold	: Not available
Melting point/range	: 0 °C
Freezing point	: Not determined as it is not relevant for the characterization of the product
Boiling point/Boiling range	: 100 °C
Flammability	: Non flammable.
Lower explosion limit	: Constituents do not contain chemical groups associated with explosivity
Upper explosion limit	: Constituents do not contain chemical groups associated with explosivity
Flash point	: Not determined as it is not relevant for the characterization of the product
Autoignition temperature	: Determination of the auto-ignition temperature is only relevant for pyrophoric liquids, however the mixture is not a pyrophoric liquid so the test is not required.
Decomposition temperature	: Only applies to self-reactive substances and mixtures, organic peroxides, and other substances and mixtures that may decompose.
pH	: 8 – 9
Viscosity, kinematic	: Thin liquid
Viscosity, dynamic	: < 20 cP at 20 °C
Solubility	: Miscible with water.

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Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 1.009 g/cm ³
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)

LD50 oral rat	64 mg/kg
LD50 dermal rat	87.12 mg/kg
LD50 dermal rabbit	78 mg/kg
LC50 Inhalation - Rat	0.33 mg/l/4h
LC50 Inhalation - Rat (Dust/Mist)	0.33 mg/l/4h

2-(2-ethoxyethoxy)ethanol (111-90-0)

LD50 oral rat	5540 mg/kg
LD50 dermal rat	5940 mg/kg
LD50 dermal rabbit	9143 mg/kg
LC50 Inhalation - Rat	5.2 mg/l/4h

Skin corrosion/irritation : Not classified
pH: 8 – 9

Additional information : Based on available data, the classification criteria are not met

Serious eye damage/irritation : Not classified
pH: 8 – 9

Additional information : Based on available data, the classification criteria are not met

Respiratory or skin sensitisation : Not classified

Additional information : Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

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Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met

1,2-ethanediol (107-21-1)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

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Viscosity, kinematic	Thin liquid
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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)

LC50 - Fish [1]	0.22 mg/l (Onchorhynchus mykiss) (OECD 203)
EC50 - Crustacea [1]	0.16 mg/l
EC50 - Other aquatic organisms [1]	0.126 mg/l waterflea
EC50 - Other aquatic organisms [2]	0.052 mg/l (Skeletonema costatum) (DIN EN ISO 10253)
EC50 72h - Algae [1]	0.027 mg/l
ErC50 algae	0.003 mg/l Skeletonema costatum
ErC50 other aquatic plants	0.018 mg/l selenastrum capricornutum
NOEC chronic fish	0.05 mg/l
NOEC chronic crustacea	0.1 mg/l
NOEC chronic algae	0.0012 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

2-(2-ethoxyethoxy)ethanol (111-90-0)

LC50 - Fish [1]	6010 mg/l
EC50 - Crustacea [1]	1982 mg/l
ErC50 algae	> 100 mg/l

1,2-ethanediol (107-21-1)

LC50 - Fish [1]	18500 mg/l Onchorhynchus mykiss (Rainbow trout)
LC50 - Fish [2]	> 10000 mg/l (Pimephales promelas)
EC50 - Crustacea [1]	46300 mg/l
EC50 - Other aquatic organisms [1]	> 100 mg/l waterflea
EC50 - Other aquatic organisms [2]	6500 mg/l
ErC50 algae	6500 – 13000 mg/l (Pseudokirchneriella subcapitata)

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1,2-ethanediol (107-21-1)	
NOEC chronic fish	15380 mg/l (Pimephales promelas)
NOEC chronic crustacea	8590 mg/l (Daphnia)
NOEC chronic algae	> 10000 mg/l (Desmodesmus subspicatus)

12.2. Persistence and degradability

PANTHER	
Persistence and degradability	Biodegradable. The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	
Persistence and degradability	t1/2 anaerobic = 0.2d. t 1/2 aerobic = 0.38 - 1.3d. 2-methyl-2H-isothiazole-3-one: t1/2 aerobic = 0.38 - 1.4d..

2-(2-ethoxyethoxy)ethanol (111-90-0)	
Persistence and degradability	Rapidly degradable

1,2-ethanediol (107-21-1)	
Persistence and degradability	Readily biodegradable,(OECD 302B method).

12.3. Bioaccumulative potential

PANTHER	
Bioaccumulative potential	No bioaccumulation.

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	
Log Pow	0.4

2-(2-ethoxyethoxy)ethanol (111-90-0)	
Partition coefficient n-octanol/water (Log Kow)	-0.54
Bioaccumulative potential	Does not show bioaccumulation.

1,2-ethanediol (107-21-1)	
BCF - Fish [1]	10 (Leuciscus idus)
Bioconcentration factor (BCF REACH)	10 (Leuciscus idus)
Bioaccumulative potential	No bioaccumulation.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

PANTHER	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	2-(2-ethoxyethoxy)ethanol (111-90-0)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	2-(2-ethoxyethoxy)ethanol (111-90-0)

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Waste / unused products : Avoid release to the environment.

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SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
14.1. UN number or ID number		
Not regulated for transport		
14.2. UN proper shipping name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Detergent Regulation (648/2004)

Allergenic fragrances > 0.01 %:

CITRONELLOL

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Labelling of contents	
Component	%
non-ionic surfactants	<5%
METHYLCHLOROISOTHIAZOLINONE (AND) METHYLISOTHIAZOLINONE	
BENZISOTHIAZOLINONE	
METHYLISOTHIAZOLINONE	
perfumes	
CITRONELLOL	

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information

: None.

Full text of H- and EUH-statements:	
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
EUH071	Corrosive to the respiratory tract.
EUH208	Contains METHYLCHLOROISOTHIAZOLINONE (AND) METHYLISOTHIAZOLINONE. May produce an allergic reaction.
EUH210	Safety data sheet available on request.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

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Full text of H- and EUH-statements:

H410	Very toxic to aquatic life with long lasting effects.
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.