

according to Regulation (EC) No 1907/2006 (REACH) as amended

Sodium persulfate

Creation date 10. June 2010

Revision date 01. December 2018 Version 4.0

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

1.1. Product identifier Sodium persulfate

Substance / mixture substanc

Chemical name Disodium peroxodisulphate (measured as [S208])

CAS number 7775-27-1

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

Substance's intended use Etching agent.

Substance uses advised against

The product should not be used in ways other then those

referred in Section 1.

Chemical safety report

1.3. Details of the supplier of the safety data sheet

Distributor

Name or trade name AG TermoPasty Grzegorz Gąsowski Address Kolejowa 33 E, Sokoły, 18-218

Poland

 Identification number (ID)
 200133730

 VAT Reg No
 9661767714

 Phone
 862741342

E-mail biuro@termopasty.pl Web address www.termopasty.pl

Competent person responsible for the safety data sheet

Name AG TermoPasty Grzegorz Gąsowski

E-mail biuro@termopasty.pl

1.4. Emergency telephone number

National Health Service (NHS) 111

National poisoning information centre Scotland, NHS 24: 111

SECTION 2: Hazards identification

2.1. Substance or mixture classification

Classification of the substance in accordance with Regulation (EC) No 1272/2008

The substance is classified as dangerous.

Ox. Sol. 3, H272 Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Resp. Sens. 1, H334 STOT SE 3, H335

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

May intensify fire; oxidiser.

Most serious adverse effects on human health and the environment

Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

2.2. Label elements

Hazard pictogram







Signal word

Danger



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Dangerous substance

Disodium peroxodisulphate (measured as [S208]) (CAS: 7775-27-1)

Hazard statements

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P220 Keep away from clothing and other combustible materials.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands and exposed parts of the body thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P284 In case of inadequate ventilation wear respiratory protection.

P301+P310 IF SWALLOWED: Immediately call a doctor.
P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P312 Call a doctor if you feel unwell.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container to in accordance with national regulations.

2.3. Other hazards

Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

The substance specified below.

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
	substance main component			
CAS: 7775-27-1	Disodium peroxodisulphate (measured as [S2O8])		Ox. Sol. 3, H272 Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Resp. Sens. 1, H334 STOT SE 3, H335	

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

Inhalation

Terminate the exposure immediately; move the affected person to fresh air. Protect the person against growing cold. Provide medical treatment if irritation, dyspnoea or other symptoms persist.



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Skin contact

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

Eye contact

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. Provide medical treatment, specialized if possible.

Ingestion

Provide medical treatment.

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

Inhalation

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Skin contact

May cause an allergic skin reaction.

Eye contact

Causes serious eye irritation.

Ingestion

Irritation, nausea.

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

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Use a self-contained breathing apparatus and full-body protective clothing. Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide sufficient ventilation. May intensify fire; oxidiser. The substance is flammable. Remove all ignition sources. Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale dust. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Place the product mechanically in an appropriate manner. Dispose of the collected material according to the instructions in the section 13.

6.4. Reference to other sections

See the Section 7, 8 and 13.



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SECTION 7: Handling and storage

7.1. Precautions for safe handling

The product should be used only in the areas where it is not in contact with open fire and other ignition sources. Use of antistatic clothes and footwear is recommended. Do not inhale dust. Prevent contact with skin and eyes. No smoking. Contaminated work clothing should not be allowed out of the workplace. Wash hands and exposed parts of the body thoroughly after handling. Do no eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Take any precaution to avoid mixing with combustibles. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Do not expose to sunlight. Store locked up. Keep container tightly closed.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

United Kingdom of Great Britain and Northern Ireland

Substance name (component)	Туре	Time of exposure	Value	Note	Source
Disodium peroxodisulphate (measured as [S2O8]) (CAS: 7775-27-1)	WEL	8 hours	1 mg/m³	The UK Advisory Committee on Toxic Substances has expressed concern that, for the OELs shown in parentheses, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but are omitted from the published 2005 list.	Gestis

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. If exposure limits cannot be observed in this mode, suitable protection of airways must be used. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles.

Skin protection

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

Respiratory protection

Half-mask with anti-dust filter when the exposition limits of substances are exceeded or in the location with insufficient ventilation. In case of inadequate ventilation wear respiratory protection.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance powder
Physical state solid at 20°C color white

Odour without fragrance Odour threshold data not available

pH 3.5-3.8 (undiluted at 20 °C)

Melting point/freezing point data not available



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Initial boiling point and boiling range data not available Flash point data not available Evaporation rate non-applicable Flammability (solid, gas) non-inflammable

Upper/lower flammability or explosive limits

flammability limits data not available explosive limits data not available Vapour pressure data not available Vapour density data not available Relative density data not available

Solubility(ies)

solubility in water 680 g/l - 20 C, 545 g/l - 60 C

solubility in fats not available
Partition coefficient: n-octanol/water data not available
Auto-ignition temperature data not available

Decomposition temperature 180 °C

Viscosity data not available Explosive properties data not available

Oxidising properties May intensify fire; oxidiser.

9.2. Other information

Density 2.4-2.6 g/cm³ at 20 °C ignition temperature data not available

SECTION 10: Stability and reactivity

10.1. Reactivity

The substance is oxidizing.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

No toxicological data is available for the substance.

Acute toxicity

Harmful if swallowed.

Disodium peroxodisulphate (measured as [S208])

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral (drinking water)	LD ₅₀	895-920 mg/kg		Rat	



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Skin corrosion/irritation

Causes skin irritation.

Disodium peroxodisulphate (measured as [S208])

Route of exposure	Result	Time of exposure	Species
	Irritating		

Serious eye damage/irritation

Causes serious eye irritation.

Disodium peroxodisulphate (measured as [S208])

Route of exposure	Result	Time of exposure	Species
	Irritating		

Respiratory or skin sensitisation

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Based on available data the classification criteria are not met.

Disodium peroxodisulphate (measured as [S208])

Route of exposure	Result	Time of exposure	Species	Sex
	Sensitizing			

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure

May cause respiratory irritation.

Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met. $% \label{eq:classification} % \label{eq:classif$

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Based on available data the classification criteria are not met.

Disodium peroxodisulphate (measured as [S208])

Parameter	Value	Time of exposure	Species	Environment
EC50	133 mg/l	48 hour	Daphnia (Daphnia magna)	
NOEC	67.6 mg/l	48 hour	Daphnia (Daphnia magna)	
NOEC	391 mg/l	96 hour	Fishes (Lepomis macrochirus)	



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Disodium peroxodisulphate (measured as [S208])

Parameter	Value	Time of exposure	Species	Environment
LC50	771 mg/l	96 hour	Fishes (Lepomis macrochirus)	

12.2. Persistence and degradability

Not available.

12.3. Bioaccumulative potential

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

16 09 04 oxidising substances, not otherwise specified

SECTION 14: Transport information

14.1. UN number

UN 1505

14.2. UN proper shipping name

SODIUM PERSULPHATE

14.3. Transport hazard class(es)

5.1 Oxidazing substances

14.4. Packing group

III - substances presenting low danger

14.5. Environmental hazards

not available

14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not available



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Additional information

Hazard identification No.

UN number Classification code

Safety signs

50 1505

(Kemler Code)

02 5.1

Air transport - ICAO/IATA

559 Packaging instructions passenger Cargo packaging instructions 563

Marine transport - IMDG

EmS (emergency plan) F-A, S-Q

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th 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, as amended.

Chemical safety assessment 15.2.

not available

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

May intensify fire; oxidiser. H302 Harmful if swallowed. H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

Guidelines for safe handling used in the safety data sheet

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smokina

P220 Keep away from clothing and other combustible materials. P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands and exposed parts of the body thoroughly after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection.

P284 In case of inadequate ventilation wear respiratory protection.

P301+P310 IF SWALLOWED: Immediately call a doctor. P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P312 Call a doctor if you feel unwell.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container to in accordance with national regulations.

Other important information about human health protection



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The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR European agreement concerning the international carriage of dangerous goods by road

BCF Bioconcentration Factor
CAS Chemical Abstracts Service

CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and

mixtures

DNEL Derived no-effect level

EC Identification code for each substance listed in EINECS

EC50 Concentration of a substance when it is affected 50% of the population EINECS European Inventory of Existing Commercial Chemical Substances

EmS Emergency plan EU European Union

IATA International Air Transport Association

IBC International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals

IC50 Concentration causing 50% blockade
ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods

INCI International Nomenclature of Cosmetic Ingredients
ISO International Organization for Standardization
IUPAC International Union of Pure and Applied Chemistry

LC50 Lethal concentration of a substance in which it can be expected death of 50% of the population

LD50 Lethal dose of a substance in which it can be expected death of 50% of the population

LOAEC Lowest observed adverse effect concentration

LOAEL Lowest observed adverse effect level log Kow Octanol-water partition coefficient

MARPOL International Convention for the Prevention of Pollution From Ships

NOAEC No observed adverse effect concentration

NOAEL No observed adverse effect level NOEC No observed effect concentration

NOEL No observed effect level
OEL Occupational Exposure Limits
PBT Persistent, Bioaccumulative and Toxic
PNEC Predicted no-effect concentration

ppm Parts per million

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID Agreement on the transport of dangerous goods by rail

UN Four-figure identification number of the substance or article taken from the UN Model

Regulations

UVCB Substances of unknown or variable composition, complex reaction products or biological

materials

VOC Volatile organic compounds

vPvB Very Persistent and very Bioaccumulative

Acute Tox. Acute toxicity
Eye Irrit. Eye irritation
Ox. Sol. Oxidising solid

Resp. Sens. Respiratory sensitization

Skin Irrit. Skin irritation
Skin Sens. Skin sensitization

STOT SE Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available



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Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. First aid principles after the exposure to the chemicals (Zásady pro poskytování první pomoci při expozici chemickým látkám, doc. MUDr. Daniela Pelclová, CSc., MUDr. Alexandr Fuchs, CSc., MUDr. Miroslava Hornychová, CSc., MUDr. Zdeňka Trávníčková, CSc., Jiřina Fridrichovská, prom. chem.). Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

The version 4.0 replaces the SDS version from 10.05.2018. Changes were made in sections 2, 13, 15 and 16.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.