

Sodium Percarbonate

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

1.1 Product identifier:

Product name	: Sodium Percarbonate
Synonyms	: sodium carbonate peroxyhydrate (2:3), oxidizing; disodium carbonate, compound with hydrogen peroxide (2:3); carbonic acid disodium salt, compd. with hydrogen peroxide (H2-O2) (2:3); FB sodium percarbonate (2:3); disodium carbonate-hydrogen peroxide (2:3); peroxydicarbonic acid, disodium salt (2:3); hydrogen peroxide (H2O2), compd. with disodium carbonate (3:2); sodium carbonate hydrogen peroxidate (2:3); hydrogen peroxide sodium carbonate adduct (2:3); peroxy sodium carbonate (2:3); sodium carbonate peroxide (2:3); sodium carbonate sesquioxide (2Na2CO3.3H2O2); sodium percarbonate; sodium peroxocarbonate (2:3); caperox; disodium carbonate sesquioxide (2:3)
Registration number REACH	: Not applicable The transition time according to REACH Regulation, article 23 is not yet expired.
Product type REACH	: Substance/mono-constituent
CAS number	: 15630-89-4
EC number	: 239-707-6
Molecular mass	: 314.06 g/mol
Formula	: 2Na2CO3.3H2O2

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

1.2.1 Relevant identified uses

Bleaching agent
Cleansing product
Oxidant
Washing products: bleaching agent

1.2.2 Uses advised against

No uses advised against known

1.3 Details of the supplier of the safety data sheet:

Supplier of the safety data sheet

Emulso Corporation
2750 Kenmore Avenue
Tonawanda, New York 14150

1.4 Emergency telephone number:

24h/7d:

1-800-535-5053 (INFOTRAC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation EC No 1272/2008

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Ox. Sol.	category 2	H272: May intensify fire; oxidiser.
Acute Tox.	category 4	H302: Harmful if swallowed.
Eye Dam.	category 1	H318: Causes serious eye damage.

2.1.2 Classification according to Directive 67/548/EEC-1999/45/EC

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Classified as dangerous in accordance with the criteria of Directives 67/548/EEC and 1999/45/EC

O; R8 - Contact with combustible material may cause fire.

Xn; R22 - Harmful if swallowed.

Xi; R41 - Risk of serious damage to eyes.

2.2 Label elements:

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



Signal word

Danger

H-statements

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H318 Causes serious eye damage.

P-statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 Wear protective gloves and eye protection/face protection.

P310 Immediately call a POISON CENTER or doctor/physician.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P330 Rinse mouth.

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

2.3 Other hazards:

CLP

Heat may cause pressure rise in tanks/drums: explosion risk

Harmful to fishes

Toxic to invertebrates (Daphnia)

SECTION 3: Composition/information on ingredients

3.1 Substances:

Name (REACH Registration No)	CAS No EC No	Conc. (C)	Classification according to DSD/DPD	Classification according to CLP	Note	Remark
disodium carbonate, compound with hydrogen peroxide (2:3) (-)	15630-89-4 239-707-6	C≥95 %	O; R8 Xn; R22 Xi; R41	Ox. Sol. 2; H272 Acute Tox. 4; H302 Eye Dam. 1; H318	(1)	Mono-constituent

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

3.2 Mixtures:

Not applicable

SECTION 4: First aid measures

4.1 Description of first aid measures:

General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Rinse with water. Take victim to a doctor if irritation persists.

After eye contact:

Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Take victim to an ophthalmologist.

After ingestion:

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

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After inhalation:

AFTER INHALATION OF DUST: Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes.

After skin contact:

Not irritating.

After eye contact:

Inflammation/damage of the eye tissue. Corrosion of the eye tissue.

After ingestion:

Nausea. Vomiting.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

5.1.1 Suitable extinguishing media:

Quantities of water.

5.1.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known.

5.2 Special hazards arising from the substance or mixture:

Upon combustion: CO and CO₂ are formed.

5.3 Advice for firefighters:

5.3.1 Instructions:

Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Safety glasses. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Prevent dust cloud formation. No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Safety glasses. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.

Suitable protective clothing

See heading 8.2

6.2 Environmental precautions:

Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the solid spill. Knock down/dilute dust cloud with water spray. Prevent spreading in sewers.

6.3 Methods and material for containment and cleaning up:

Prevent dust cloud formation. Scoop solid spill into closing containers. Carefully collect the spill/leftovers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4 Reference to other sections:

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1 Precautions for safe handling:

Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Remove contaminated clothing immediately. Do not discharge the waste into the drain.

7.2 Conditions for safe storage, including any incompatibilities:

7.2.1 Safe storage requirements:

Store in a cool area. Keep out of direct sunlight. Store in a dry area. Keep only in the original container. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources, combustible materials, oxidizing agents, (strong) acids, (strong) bases, metals, organic materials, water/moisture.

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7.2.3 Suitable packaging material:

Stainless steel, aluminium, polyethylene, polypropylene.

7.2.4 Non suitable packaging material:

Steel.

7.3 Specific end use(s):

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

Product name	Test	Number
No data available		

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL - Workers

Provox, Provox C

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	5 mg/m ³	
	Long-term local effects dermal	12.8 mg/cm ²	
	Acute local effects dermal	12.8 mg/cm ²	

DNEL - General population

Provox, Provox C

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects dermal	6.4 mg/cm ²	
	Acute local effects dermal	6.4 mg/cm ²	

PNEC

Provox, Provox C

Compartments	Value	Remark
Fresh water	0.035 mg/l	
Marine water	0.035 mg/l	
Aqua (intermittent releases)	0.035 mg/l	
STP	16.24 mg/l	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2 Exposure controls:

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Avoid raising dust. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

Dust production: dust mask with filter type P2.

b) Hand protection:

Gloves.

- materials for protective clothing (good resistance)

PVC, rubber.

c) Eye protection:

Face shield. In case of dust production: protective goggles.

d) Skin protection:

Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical form	Crystalline solid Crystalline powder
Odour	Odourless
Odour threshold	No data available
Colour	White
Particle size	250-1000 µm
Explosion limits	Not applicable
Flammability	Non combustible
Log Kow	No data available
Dynamic viscosity	Not applicable
Kinematic viscosity	Not applicable
Melting point	Not applicable
Boiling point	Not applicable
Flash point	Not applicable (inorganic)
Evaporation rate	Not applicable
Vapour pressure	Not applicable
Relative vapour density	Not applicable
Solubility	water ; 140 g/l ; 20 °C
Relative density	2.16 ; 20.4 °C
Decomposition temperature	> 75 °C
Auto-ignition temperature	Not applicable
Explosive properties	Not classified
Oxidising properties	May intensify fire; oxidiser.
pH	10.4-10.6 ; 140 g/l ; 20 °C

Physical hazards

Oxidising solid

9.2 Other information:

Absolute density	2140 kg/m ³
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SECTION 10: Stability and reactivity

10.1 Reactivity:

Promotes combustion. Substance has basic reaction.

10.2 Chemical stability:

Unstable on exposure to heat. Unstable on exposure to moisture.

10.3 Possibility of hazardous reactions:

Decomposes slowly: oxidation resulting in increased fire or explosion risk. This reaction is accelerated on exposure to water (moisture) and temperature rise.

10.4 Conditions to avoid:

Avoid raising dust. Keep away from naked flames/heat.

10.5 Incompatible materials:

Combustible materials, oxidizing agents, (strong) acids, (strong) bases, metals, organic materials, water/moisture, steel.

10.6 Hazardous decomposition products:

Reacts with many compounds: oxidation resulting in increased fire or explosion risk. Upon combustion: CO and CO₂ are formed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

11.1.1 Test results

Acute toxicity

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Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50	Equivalent to OECD 401	1034 mg/kg		Rat	Male/female	Experimental value
Dermal	LD50	Equivalent to OECD 402	> 2000 mg/kg		Rabbit	Male/female	Experimental value
Inhalation							Not determined, exemption according to REACH

Conclusion

Harmful if swallowed.
 Low acute toxicity by the oral route
 Low acute toxicity by the inhalation route

Corrosion/irritation

Provox, Provox C

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Highly irritating	EPA OPP 81-4		1; 24; 48; 72 hours	Rabbit	Experimental value
Skin	Not irritating	Other	4 h	1; 2; 3; 4; 7; 10; 14 days	Rabbit	Experimental value
Inhalation						No data available

Conclusion

Not classified as irritating to the skin
 Causes serious eye damage.

Respiratory or skin sensitisation

Provox, Provox C

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Gender	Value determination
Skin	Not sensitizing	Buehler test		48 hours	Guinea pig	Male/female	Experimental value
Inhalation							No data available

Conclusion

Not classified as sensitizing for skin
 Not classified as sensitizing for inhalation

Specific target organ toxicity

Provox, Provox C

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Gender	Value determination
Oral									Not relevant, expert judgement
Dermal									Not relevant, expert judgement
Inhalation									Not relevant, expert judgement

Conclusion

Supplementary classification for repeated dose toxicity was not considered necessary

Mutagenicity (in vitro)

Provox, Provox C

Result	Method	Test substrate	Effect	Value determination
				Not relevant, expert judgement

Mutagenicity (in vivo)

Provox, Provox C

Result	Method	Exposure time	Test substrate	Gender	Organ	Value determination
						No data available

Carcinogenicity

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Provox, Provox C

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination	Organ	Effect
Inhalation							No data available		
Dermal							No data available		
Oral							No data available		

Reproductive toxicity

Provox, Provox C

	Parameter	Method	Value	Exposure time	Species	Gender	Effect	Organ	Value determination
Developmental toxicity									Not relevant, expert judgement

Conclusion CMR

- Not classified for reprotoxic or developmental toxicity
- Not classified for mutagenic or genotoxic toxicity
- Not classified for carcinogenicity

Toxicity other effects

Provox, Provox C

No (test)data available

Chronic effects from short and long-term exposure

Provox, Provox C

No effects known.

SECTION 12: Ecological information

12.1 Toxicity:

Provox, Provox C

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	US EPA	70.7 mg/l	48 h	Pimephales promelas	Semi-static	Fresh water	Experimental value
Acute toxicity invertebrates	EC50	US EPA	4.9 mg/l	48 h	Daphnia pulex	Semi-static	Fresh water	Experimental value

Conclusion

- Harmful to fishes
- Toxic to invertebrates (Daphnia)
- pH shift
- Insufficient data available on ecotoxicity

12.2 Persistence and degradability:

- Biodegradability: not applicable
- Hydrolysis in water

12.3 Bioaccumulative potential:

Provox, Provox C

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

Conclusion

- Not bioaccumulative

12.4 Mobility in soil:

- Low potential for adsorption in soil

12.5 Results of PBT and vPvB assessment:

The criteria of PBT and vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006 do not apply to inorganic substances.

12.6 Other adverse effects:

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Global warming potential (GWP)

Not included in the list of substances which may contribute to the greenhouse effect (Regulation (EC) No 842/2006)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No. 1272/2008 and 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1 Waste treatment methods:

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, decision 2000/0532/EC).

16 09 03* (peroxides, for example hydrogen peroxide). Depending on branch of industry and production process, also other EURAL codes may be applicable.

Hazardous waste according to Directive 2008/98/EC.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Remove to an authorized plant for the destruction, neutralization and elimination of hazardous waste. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1 UN number:

UN number	3378
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14.2 UN proper shipping name:

Proper shipping name	Sodium carbonate peroxyhydrate
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14.3 Transport hazard class(es):

Hazard identification number	50
Class	5.1
Classification code	O2

14.4 Packing group:

Packing group	II
Labels	5.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

Special provisions	
Limited quantities	Combination packagings: not more than 1 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass)

Rail (RID)

14.1 UN number:

UN number	3378
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14.2 UN proper shipping name:

Proper shipping name	Sodium carbonate peroxyhydrate
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14.3 Transport hazard class(es):

Hazard identification number	50
Class	5.1
Classification code	O2

14.4 Packing group:

Packing group	II
Labels	5.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

Special provisions	
Limited quantities	Combination packagings: not more than 1 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass)

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Inland waterways (ADN)

14.1 UN number:	
UN number	3378
14.2 UN proper shipping name:	
Proper shipping name	Sodium carbonate peroxyhydrate
14.3 Transport hazard class(es):	
Class	5.1
Classification code	O2
14.4 Packing group:	
Packing group	II
Labels	5.1
14.5 Environmental hazards:	
Environmentally hazardous substance mark	no
14.6 Special precautions for user:	
Special provisions	
Limited quantities	Combination packagings: not more than 1 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass)

Sea (IMDG/IMSBC)

14.1 UN number:	
UN number	3378
14.2 UN proper shipping name:	
Proper shipping name	Sodium carbonate peroxyhydrate
14.3 Transport hazard class(es):	
Class	5.1
14.4 Packing group:	
Packing group	II
Labels	5.1
14.5 Environmental hazards:	
Marine pollutant	-
Environmentally hazardous substance mark	no
14.6 Special precautions for user:	
Special provisions	967
Limited quantities	Combination packagings: not more than 1 kg per inner packaging for solids. A package shall not weigh more than 30 kg. (gross mass)
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	
Annex II of MARPOL 73/78	Not applicable, based on available data

Air (ICAO-TI/IATA-DGR)

14.1 UN number:	
UN number	3378
14.2 UN proper shipping name:	
Proper shipping name	Sodium carbonate peroxyhydrate
14.3 Transport hazard class(es):	
Class	5.1
14.4 Packing group:	
Packing group	II
Labels	5.1
14.5 Environmental hazards:	
Environmentally hazardous substance mark	no
14.6 Special precautions for user:	
Special provisions	
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	2.5 kg

SECTION 15: Regulatory information

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

European legislation:

European drinking water standards

Maximum concentration in drinking water: 200 mg/l (sodium) (Directive 98/83/EC)

Sodium Carbonate

REACH registration

The transition time according to REACH Regulation, article 23 is not yet expired.

Volatile organic compounds (VOC)

Not applicable

National legislation The Netherlands

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 06
Waterbezwaarlijkheid	7

National legislation Germany

TA-Luft	TA-Luft Klasse 5.2.1
WGK	1; Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)

National legislation France

No data available

National legislation Belgium

No data available

National legislation Denmark

No data available

National legislation Finland

No data available

National legislation Norway

No data available

National legislation Switzerland

No data available

Other relevant data

No data available

15.2 Chemical safety assessment:

No chemical safety assessment has been conducted.

SECTION 16: Other information

Information based on classification according to CLP

Labelling according to Directive 67/548/EEC-1999/45/EC (DSD/DPD)

Not listed in Annex I of directive 67/548/EEC et sequens. Labelling established on the basis of the available data.

Labels



Oxidising



Harmful

R-phrases

- 08 Contact with combustible material may cause fire
- 22 Harmful if swallowed
- 41 Risk of serious damage to eyes

S-phrases

- (02) (Keep out of the reach of children)
- 08 Keep container dry
- 17 Keep away from combustible materials
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- 39 Wear eye/face protection
- (46) (If swallowed, seek medical advice immediately and show this container or label)

Full text of any R-phrases referred to under headings 2 and 3:

- R08 Contact with combustible material may cause fire
- R22 Harmful if swallowed
- R41 Risk of serious damage to eyes

Full text of any H-statements referred to under headings 2 and 3:

- H272 May intensify fire; oxidiser.
- H302 Harmful if swallowed.
- H318 Causes serious eye damage.

(*) = INTERNAL CLASSIFICATION BY BIG

PBT-substances = persistent, bioaccumulative and toxic substances

DSD Dangerous Substance Directive

Sodium Percarbonate

Disclaimer:

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet