

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

1.1. Product identifier

Product form : Mixture
Trade name : CLEAN DETERGENT 2kg
UFI : SJGF-20JV-E00M-7NEQ
Product code : R5236 VIB
Type of product : Detergent
Product group : Powder

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

1.2.1. Relevant identified uses

Main use category : Professional use
Function or use category : Cleaning/washing agents and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Zernike srl
via del Progresso, 15
47030 San Mauro Pascoli - FC - Italy
T +39 0541 810270 - F +39 0541 937456
info@zernike.it - www.zernike.it

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 1, Sub-Category 1B H314

Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335

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

Adverse physicochemical, human health and environmental effects

There are no typical symptoms and effects known. The powder may cause eye irritation. Inhalation of finely ground product may cause sensitization. For frequent contact with undiluted product may cause redness of the skin occur.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

GHS07

CLP Signal word : Danger

Contains : DISODIUM METASILICATE, TRISODIUM PHOSPHATE

Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.

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Precautionary statements (CLP) : P260 - Do not breathe dust, fume, gas, mist, vapours, spray.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water or shower.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER, a doctor.

2.3. Other hazards

Other hazards which do not result in classification : Avoid spilling the product, as this might cause falls.

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/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

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 is 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]
SODIUM CARBONATE	CAS-No.: 497-19-8 EC-No.: 207-838-8 EC Index-No.: 011-005-00-2 REACH-no: 01-2119485498-19	15 – 30	Eye Irrit. 2, H319
DISODIUM METASILICATE	CAS-No.: 6834-92-0 EC-No.: 229-912-9 EC Index-No.: 014-010-00-8 REACH-no: 01-2119449811-37	15 – 30	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1B, H314 STOT SE 3, H335
TRISODIUM PHOSPHATE	CAS-No.: 7601-54-9 EC-No.: 231-509-8 REACH-no: 01-2119489800-32	5 – 15	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
ALCOHOLS C12-14 ETHOXYLATED	CAS-No.: 68439-50-9 REACH-no: 01-2119487984-16	< 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 3, H412
SODIUM LAURYL SULFATE	CAS-No.: 85586-07-8 REACH-no: 01-2119489463-28	< 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412

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

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According to Regulation (EU) 2020/878 (REACH Annex II)

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Does not require any particular or specific measures. Handle in accordance with the usual hygiene rules.
First-aid measures after inhalation	: Move to fresh air. Obtain medical attention if necessary.
First-aid measures after skin contact	: Rinse skin with plenty of water or shower. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. If irritation persists, consult a doctor.
First-aid measures after ingestion	: Drink plenty of water. Do not induce vomiting. Call a doctor.

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

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Harmful in contact with skin. Skin irritation and erythema.
Symptoms/effects after eye contact	: May cause severe irritation. Serious damage to eyes.
Symptoms/effects after ingestion	: Ingestion may cause nausea, vomiting and diarrhea.

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

No supplementary information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam, powder, carbon dioxide (CO ₂), water spray.
Unsuitable extinguishing media	: None.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Non combustible.
Explosion hazard	: No dangerous reactions known.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	: Wear suitable respiratory equipment in case of insufficient ventilation.
Firefighting instructions	: No special precautions required.
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

General measures	: Absorb spillage to prevent material damage.
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6.1.1. For non-emergency personnel

Protective equipment	: No special required clothing.
Emergency procedures	: Clean spills promptly.

6.1.2. For emergency responders

Protective equipment	: Use personal protective equipment as required.
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Not in groundwater, surfacewater or sewerage.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Collect spillage. Sweep up or shovel.
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6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8.

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According to Regulation (EU) 2020/878 (REACH Annex II)

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: May be corrosive to metals.
Precautions for safe handling	: Use personal protective equipment as required. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.
Hygiene measures	: Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Provide local exhaust or general room ventilation.
Storage conditions	: Keep out of reach of children. Protect from moisture. Store in original container. Store in a closed container.
Incompatible products	: Acids.
Incompatible materials	: Metals. Do not use with copper/aluminium/zinc - risk of corrosion.
Storage area	: Store tightly closed in a dry and cool place.

7.3. Specific end use(s)

Dishwash soaking agent.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

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

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Protective goggles. Dust production: dust mask with filter type P2. Gloves.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or face shield

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8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

In case of repeated or prolonged contact wear gloves. The glove material has to be impermeable and resistant to the product/the substance/the preparation. When choosing the glove material, take account of the permeation times, the degree of permeability and the breakdown rate.

Glove material: Choosing a suitable glove is not just about the material, other quality features also come into play and these differ from manufacturer to manufacturer. Given the product is composed from several substances, the durability of the glove material cannot be calculated in advance and therefore it has to be tested before use. Always seek advice from the manufacturer of the gloves.

Hygiene: Contaminated gloves should be replaced. Personal hygiene is an essential condition to ensure proper care of the hands. Gloves should only be worn when hands are clean. Hands should be thoroughly washed and dried after having worn gloves.

Permeation time of the glove material: The manufacturer of the glove can inform you of the exact permeation time; take account of this. According to DIN EN 374, when there is hand contact with the product and that contact was for a period of 15 minutes, then the gloves of the following material offer sufficient protection.

- Butyl rubber (thickness > 0.5 mm)
- Nitril rubber (thickness > 0.35 mm)
- Polychloroprene rubber (thickness > 0.4 mm)
- Natural rubber (thickness > 0.5 mm)

For continuous contact, we recommend gloves with a breakthrough time of at least 240 minutes, where preference lies with a breakthrough time of more than 480 minutes.

Protection against splashes: The same gloves used for long term contact should be worn for short term contact or protection against splashes. A shorter breakthrough time can be acceptable when it is just used for a timely replacement.

Other skin protection

Materials for protective clothing:

No special required clothing

8.2.2.3. Respiratory protection

Respiratory protection:

Dust formation: dust mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: White
Appearance	: Powder
Odour	: Characteristic
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Oxidising properties	: Not oxidizing
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not flammable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No decomposition
pH	: Not applicable
pH solution	: 11.5 – 11.9 (1g/100ml)

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According to Regulation (EU) 2020/878 (REACH Annex II)

Viscosity, kinematic	: Not applicable
Solubility	: Water: complete
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 750 – 950 g/l
Relative density	: Not available
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available

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

No dangerous reactions known.

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

Do not mix with other products.

10.5. Incompatible materials

Acids. May be corrosive to metals.

10.6. Hazardous decomposition products

None.

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

SODIUM CARBONATE (497-19-8)

LD50 oral rat	2800 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	2.3 mg/l/2u

ALCOHOLS C12-14 ETHOXYLATED (68439-50-9)

LD50 oral rat	300 – 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

SODIUM LAURYL SULFATE (85586-07-8)

LD50 oral rat	1800 mg/kg
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According to Regulation (EU) 2020/878 (REACH Annex II)

DISODIUM METASILICATE (6834-92-0)

LD50 oral rat	1152 – 1349 mg/kg
LD50 dermal rat	≥ 5000 mg/kg
LC50 Inhalation - Rat	≥ 2.06 mg/l

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Assumed to cause serious eye damage
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.

TRISODIUM PHOSPHATE (7601-54-9)

STOT-single exposure	May cause respiratory irritation.
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DISODIUM METASILICATE (6834-92-0)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

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	: Irritation: may cause irritation to the respiratory system, Harmful in contact with skin.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: No known adverse effects on the functioning of water treatment plants under normal use conditions as recommended.
Ecology - water	: The surfactants in this product 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.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

SODIUM CARBONATE (497-19-8)

LC50 - Fish [1]	(96h) 300 mg/l <i>Lepomis macrochirus</i>
EC50 - Crustacea [1]	200 – 227 mg/l <i>Ceriodaphnia dubia</i>

ALCOHOLS C12-14 ETHOXYLATED (68439-50-9)

LC50 - Fish [1]	(96h) 5 (1 – 10) mg/l <i>brachydanio rerio</i>
EC50 - Crustacea [1]	(48h) 5 (1 – 10) mg/l <i>Daphnia magna</i>
EC50 - Other aquatic organisms [1]	(72h) 5 (1 – 10) mg/l <i>Scenedesmus subspicatus</i>

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According to Regulation (EU) 2020/878 (REACH Annex II)

SODIUM LAURYL SULFATE (85586-07-8)

LC50 - Fish [1]	3.6 mg/l Oncorhynchus mykiss
EC50 - Crustacea [1]	4.7 mg/l Daphnia magna
EC50 72h - Algae [1]	> 20 mg/l Desmodesmus subspicatus
NOEC chronic fish	1.357 mg/l Pimephales promelas - 42 days
NOEC chronic crustacea	0.508 mg/l Ceriodaphnia dubia - 7days
NOEC chronic algae	0.6 mg/l Desmondesmus subspicatus - 72h

DISODIUM METASILICATE (6834-92-0)

LC50 - Fish [1]	(96h) 210 mg/l Brachydanio rerio
EC50 - Crustacea [1]	(48h) 1700 mg/l Daphnia magna
EC50 72h - Algae [1]	(72h) 207 mg/l Scenedesmus subspicatus

12.2. Persistence and degradability

GREEN CLEAN DETERGENT 2kg

Persistence and degradability	Not established.
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SODIUM LAURYL SULFATE (85586-07-8)

Biodegradation	> 78 %
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12.3. Bioaccumulative potential

GREEN CLEAN DETERGENT 2kg

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

GREEN CLEAN DETERGENT 2kg

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

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : No other effects known. Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose of contents/container to local regulations.
Ecology - waste materials	: Avoid release to the environment.


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According to Regulation (EU) 2020/878 (REACH Annex II)

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3253	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
DISODIUM TRIOXOSILICATE	Not applicable	Not applicable	Not applicable	Not applicable
Transport document description				
UN 3253 DISODIUM TRIOXOSILICATE, 8, III, (E)	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
8	Not applicable	Not applicable	Not applicable	Not applicable
	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
III	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment: No	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C6
Limited quantities (ADR) : 5kg
Excepted quantities (ADR) : E1
Packing instructions (ADR) : P002, IBC08, LP02, R001
Special packing provisions (ADR) : B3
Mixed packing provisions (ADR) : MP10
Portable tank and bulk container instructions (ADR) : T1
Portable tank and bulk container special provisions (ADR) : TP33
Tank code (ADR) : SGAV
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Bulk (ADR) : VV9
Hazard identification number (Kemler No.) : 80
Orange plates :



Tunnel restriction code (ADR) : E
EAC code : 2X

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According to Regulation (EU) 2020/878 (REACH Annex II)

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

Detergent Regulation (648/2004/EC): Labelling of contents:

Component	%
Phosphates	5-15%
Phosphonates, Non-ionic surfactants, Anionic surfactants	<5%

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Other information : None.

Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
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Safety Data Sheet

According to Regulation (EU) 2020/878 (REACH Annex II)

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Met. Corr. Not classified		Expert judgment
Skin Corr. 1B	H314	Calculation method
STOT SE 3	H335	Calculation method

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.