Product	RENOVIVE GLASSWASH DETERGENT SANITIZER
Revision date	05 July 2017
Revision	1

Safety Data Sheet (SDS)

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

Product name	**RENOVIVE GLASSWASH DETERGENT SANITIZER**
Product no.	**GRARENO**
Synonyms, Trade names	No information available.

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

Identified uses	Cleaning agent.
Uses advised against	Any other purpose.

1.3 Details of the supplier of the safety data sheet

Supplier	Kitchenmaster NI Ltd 11 Comber Road Belfast BT8 8AN United Kingdom Tel: 028 9081477 02890812881
Contact person	sales@kitchenmaster-ni.com

1.4 Emergency telephone number

Emergency telephone	Emergency Telephone Number: 028 9081 4777 08:30 – 17:00 Monday to Thursday 08:30 – 16:30 Friday

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and chemical hazards	Not classified
Human health	Skin Corr. 1B - H314, Eye Dam. 1 - H318
Environment	Aquatic Chronic 3 - H412

2.2 Label elements

Contains	disodium metasilicate
Detergent labeling	≥30% Phosphates <5% chlorine-based bleaching agents

Label in accordance with (EC) no. 1272/2008

Signal word	Danger
Hazard statements	H314 Causes severe skin burns and eye damage. H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	**Prevention** P260 Do not breathe dust/fume/ gas/mist/vapours/spray. P280 Wear protective gloves/ protective clothing/eye protection/face protection. **Response**

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ 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 or doctor/physician.

EUH statements EUH031 Contact with acids liberates toxic gas.

2.3 Other hazards

None known.

Section 3: Composition/identification of ingredients

3.1 Substance

Not applicable.

3.2 Mixtures

Name	Product identifier	Reg. EU 1272/2008	%
pentasodium triphosphate	CAS-No.: 7758-29-4 EC No.: 231-838-7 REACH Reg No.: 01-2119430450-54-0000		30-60%
disodium metasilicate	CAS-No.: 6834-92-0 EC No.: 229-912-9	Skin Corr. 1B - H314, STOT SE 3 - H335	1-10%
troclosene sodium	CAS-No.: 2893-78-9 EC No.: 220-767-7	Ox Sol 2- H272, Acute Tox 4 - H302, Eye Irrit.2A - H319, STOT SE 3 - H335, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410	1-10%

The full text for all hazard statements are displayed in section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

Section 4: First aid measures

4.1 Description of first aid measures

General information Provide general first aid, rest, warmth and fresh air. As a general rule, in case of doubt or if symptoms persist, always call a doctor. Seek medical attention for all burns and eye injuries, regardless how minor they may seem. First aid personnel must be aware of own risk during rescue.

Inhalation Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

Ingestion If this product is ingested, remove victim immediately from source of exposure. Rinse mouth thoroughly. Do not induce vomiting. Provide fresh air, warmth and rest. Get medical attention. Never give anything by mouth to an unconscious person.

Skin contact Remove victim immediately from source of exposure. Remove contaminated clothing, shoes and jewelry and wash before reuse. Wash the skin immediately with water. Obtain medical attention if irritation persists or if blistering occurs.

Eye contact Do not rub eye. If this product contacts the eyes, gently flush eyes with water for at least fifteen (15) minutes, lifting the upper and lower eyelids occasionally. Remove contact lenses if present and easy to do so. Avoid contaminating unaffected eye. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation Inhalation of mist or vapor may cause respiratory tract irritation. High dust levels may irritate the respiratory system.

Ingestion May cause stomach pain or vomiting.

Skin contact Dust or powder may cause mechanical irritation. Skin contact may produce skin irritation and chemical burns.

Eye contact Extreme irritation of eyes and mucous membranes, including burning and tearing. Causes serious eye damage. Dust can cause mechanical irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to the physician Treat symptomatically.

Section 5: Fire-fighting measures

5.1 Extinguishing media

Extinguishing media Extinguish with foam, carbon dioxide or water fog. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media Do not use ABC extinguishers containing nitrogen, due to risk of violent chemical reaction. Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products During fire, toxic gases (CO, CO2) are formed. Decomposition products may include: Chlorine. Nitrogen trihloride. Nitrogen oxides (NOx). Hydrogen chloride (HCl).

Unusual fire & explosion hazards Dust clouds may be explosive. A risk of explosion and / or of toxic gas formation exists with the following substances:Ammonia, urea, ammonium compounds, bases, and acids. Aqueous solutions will react with aluminium, zinc, tin, cuppur and their alloys evolving hydrogen gas which can form an explosive mixture with air.

Specific hazards Fire creates: Carbon monoxide (CO). Carbon dioxide (CO2). Water used for fire extinguishing, which has been in contact with the product, may be corrosive.

5.3 Advice for firefighters

Special fire fighting procedures If possible, fight fire from protected position. Avoid breathing fire vapours. Ventilate closed spaces before entering them. Containers close to fire should be removed immediately or cooled with water if safe to do so. Do not release runoff from fire to drains or watercourses.

Protective equipment for firefighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Evacuate and ventilate area. Eliminate all sources of ignition. Avoid inhalation of vapours and contact with skin and eyes. In case of inadequate ventilation, use respiratory protection. Do not touch or walk through spilled material. If necessary evacuate surrounding areas.

For emergency responders Follow safe handling advice and personal protective equipment recommendations for normal use of product.

6.2 Environmental precautions

Environmental precautions Do not discharge onto the ground or into water courses. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Spill clean up methods Stop leak if possible without risk. Eliminate all sources of ignition. Ventilate and evacuate the area. DO NOT touch spilled material! When dealing with a spillage, wear necessary protective equipment. Absorb spillage with non-combustible, inert absorbent material. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container. Wash thoroughly after dealing with a spillage.

6.4 Reference to other sections

Reference to other sections See section 1 for emergency contact. For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handling

Read and follow manufacturer's recommendations. Use proper personal protection when handling (refer to Section 8). Do not handle broken packages without protective equipment. Do not use contact lenses.
Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Do not eat, drink or smoke when using the product. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions

Keep upright, locked up and out of reach of children. Keep the product in its original container. Store in cool dry areas away from direct sunlight or sources of ignition. Keep away from acids. Store separately from incompatible substances - see section ten.

Storage class

Corrosive storage.

7.3 Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

Usage description

Use only according to directions. Replace and tighten cap after use.

Section 8: Exposure controls/Personal protection

8.1 Control parameters

Ingredient comments

OEL - Occulational Exposure Limit - Ireland, Occupational Exposure Limits 2016.
WEL - Workplace Exposure Limits - EH40/2005 Workplace exposure limits.
No exposure limits noted for ingredient(s).

8.2 Exposure Controls

Protective equipment

Engineering measures

Provide adequate ventilation, including appropriate local extraction.

Respiratory equipment

If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/145/143/149. The specific respirator selected must be based on contamination levels found in the work place. Where risk assessment shows air-purifying respirators are appropriate a full face respirator conforming to EN143 should be used, and suitable respirator cartridges as a backup to engineering controls. Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK). Consult manufacturer for specific advice.

Hand protection

Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374) is recommended. (EU Directive 89/686/EEC). Gloves must be inspected prior to use. Suggested material: Butyl-rubber. Breakthrough time: >480 minutes. Minimum layer thickness: 0.33 mm. Consult manufacturer for advice.
Selection of the glove material depends on consideration of the penetration times, rates of diffusion and degradation, and concentration specific to the workplace. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Eye protection

Wear safety goggles or face shield to prevent any possibility of eye contact. Use equipment for eye protection tested and approved under appropriate government standards such as EN 166(EU).

Other protection

Body protection must be chosen in consultation with a specialist, depending on activity and possible exposure, e.g. apron, protective boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust). The equipment must be cleaned thoroughly after each use.

Hygiene measures

Observe normal hygiene standards. Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke. Wash hands after use.

Process conditions

Ensure that eye flushing systems and safety showers are located close by in the work place.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Crystalline Powder.
Colour	No information available.
Odour	No information available.
Odour threshold - lower	No information available.
Odour threshold - upper	No information available.
pH-Value, Conc. Solution	No information available.
pH-Value, Diluted solution	No information available.
Melting point	No information available.
Initial boiling point and boiling range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability state	No information available.
Flammability limit - lower(%)	No information available.
Flammability limit - upper(%)	No information available.
Vapour pressure	No information available.
Vapour density (air=1)	No information available.
Relative density	No information available.
Bulk density	No information available.
Solubility	Soluble in water.
Decomposition temperature	No information available.
Partition coefficient; n-Octanol/Water	No information available.
Auto ignition temperature (°C)	No information available.
Viscosity	No information available.
Explosive properties	Not classified as explosive.
Oxidising properties	No information available.

9.2 Other information

Molecular weight	No information available.
Volatile organic compound	No information available.
Other information	None noted.

Section 10: Stability and reactivity

10.1 Reactivity

Reactivity	Contact with acids liberates toxic gas. Reacts with ammonia, urea, ammonium compounds, bases, acids. Reacts with most metals in the presence of moisture, liberating hydrogen, an extremely flammable gas.

10.2 Chemical stability

Stability	Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

Hazardous reactions	Exothermic reaction with: Acids. Dust clouds may be explosive. A risk of explosion and / or of toxic gas formation exists with the following substances: Ammonia, urea, ammonium compounds, bases, acids. Aqueous solutions will react with aluminium, zinc, tin, cuppur and their alloys evolving hydrogen gas which can form an explosive mixture with air.
Hazardous polymerisation	Will not polymerise.
Polymerisation description	Not applicable.

10.4 Conditions to Avoid

Conditions to avoid	Heat, sparks, open flames, temperature extremes and direct sunlight. Avoid storing in large quantities or for long periods of time.

10.5 Incompatible materials

Materials to avoid	Do not mix with other chemicals unless listed on directions. Keep away from ammonia, urea, ammonium compounds, bases, acids, and oxidisers. Aqueous solutions will react with aluminium, zinc, tin, cuppur and their alloys evolving hydrogen gas which can form an explosive mixture with air. Exothermic reaction if in contact with acids.

10.6 Hazardous decomposition products

Hazardous decomposition products	Decomposition products may include: Chlorine, Nitrogen Trichloride, Nitrogen Oxide, Hydrogen Chloride, and Carbon Monoxide.

Section 11: Toxicological information

11.1 Information on toxicological effects

Toxicological information	No toxicological information for the overall finished product.
Acute toxicity (Oral LD50)	DISODIUM METASILICATE (CAS 6834-92-0): 994 mg/kg, Rat. REACH dossier information.
Acute toxicity (Dermal LD50)	DISODIUM METASILICATE (CAS 6834-92-0): > 3000 mg/kg, Rat. ECHA dossier information.
Acute toxicity (Inhalation LD50)	DISODIUM METASILICATE (CAS 6834-92-0): > 2.06 mg/l (vapours) Rat. REACH dossier information.
Serious eye damage/irritation	Causes severe eye damage.
Skin corrosion/irritation	No information available.
Respiratory sensitisation	No information available.
Skin sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Specific target organ toxicity - Single exposure:	
STOT - Single exposure	No information available.
Specific target organ toxicity - Repeated exposure:	
STOT - Repeated exposure	No information available.
Inhalation	Inhalation of mist or vapor may cause respiratory tract irritation. High dust levels may irritate the respiratory system.
Ingestion	May cause stomach pain or vomiting.
Skin contact	Dust or powder may cause mechanical irritation. Skin contact may produce skin irritation and chemical burns.
Eye contact	Extreme irritation of eyes and mucous membranes, including burning and tearing. Causes serious eye damage. Dust can cause mechanical irritation.
Waste management	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
Routes of entry	No information available.
Target organs	Eyes, skin, digestive system, respiratory system.

Aspiration hazards: No information available.
Reproductive toxicity: No information available.

Name	LD50 oral	LD50 dermal	LD50 inhalation
pentasodium triphosphate	>2000.00mg/kg Rat		

Section 12: Ecological information

12.1 Toxicity

Acute toxicity - Fish DISODIUM METASILICATE (CAS 6834-92-0) LC50: (96 hours) 210 mg/l, Brachydanio rerio (Zebra Fish.) REACH dossier information.
Acute toxicity - Aquatic invertebrates DISODIUM METASILICATE (CAS 6834-92-0) EC50: (48 hours) 7.8 pH, Daphnia magna. REACH dossier information.
Acute toxicity - Aquatic plants DISODIUM METASILICATE (CAS 6834-92-0) EC50: (72 hours) 207 mg/l, Desmodesmus subspicatus. REACH dossier information.
Acute toxicity - Microorganisms No information available.
Chronic toxicity - Fish No information available.
Chronic toxicity - Aquatic invertebrates No information available.
Chronic toxicity - Aquatic plants No information available.
Chronic toxicity - Microorganisms No information available.
Ecotoxicity Harmful to aquatic life with long lasting effects.
Eco toxilogical information The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

12.2 Persistence and degradability

Degradability The degradability of the product has not been stated.
Biological oxygen demand No information available.
Chemical oxygen demand No information available.

12.3 Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.
Bioacculmation factor No information available.
Partition coefficient; n-Octanol/Water No information available.

12.4 Mobility in soil

Mobility Soluble in water.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment None of the raw materials listed are classified as PBT / vPvB substances.

12.6 Other adverse effects

Other adverse effects None known.

Name	Acute toxicity (Fish)	Acute toxicity (Aquatic invertebrates)	Acute toxicity (Aquatic plants)
sodium sulphate	LC50 96 Hours 7690.00mg/l Pimephales promelas (Fat-head Minnow)	LC50 48 Hours 4580.00mg/l Daphnia magna	

Section 13: Disposal considerations

Waste management When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1 Waste treatment methods

Disposal methods Dispose of waste and residues in accordance with local authority requirements. For waste disposal, use a licensed industrial waste disposal agent.

Section 14: Transport information

14.1 UN number

UN no. (ADR)	UN1759
UN no. (IMDG)	UN1759
UN no. (IATA)	UN1759

14.2 UN proper shipping name

ADR proper shipping name	CORROSIVE SOLID, N.O.S. (disodium metasilicate)
IMDG proper shipping name	CORROSIVE SOLID, N.O.S. (disodium metasilicate)
IATA proper shipping name	CORROSIVE SOLID N.O.S. (disodium metasilicate)

14.3 Transport hazard class(es)

ADR class	8
IMDG class	8
IATA class	8

Transport labels

14.4 Packing group

ADR/RID/ADN packing group	II
IMDG packing group	II
IATA packing group	II

14.5 Environmental hazards

ADR	No
IMDG	No
IATA	No

14.6 Special precautions for user

EMS	F-A, S-B
Emergency action code	A3
Hazard no. (ADR)	80
Tunnel restriction code	(E)

14.7 Transport in bulk according to annex II of MARPOL73/78 and the IBC code

Not applicable.

Section 15: Regulatory information

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

EU legislation 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 with amendments. The UN Globally Harmonized System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 453/2010 of 20th May 2010 amending regulation (EC) No 1907/2006.

Approved code of practice Workplace Exposure Limits Guidance Note EH40/2005.

2016 Code of Practice for the Chemical Agents Regulations in accordance with section 60 of the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005).

Chemical safety assessment	No chemical safety assessment has been carried out.

Section 16: Other information

General information	This Safety Data Sheet is in accordance with Reach Regulation (EC) No 453/2010.
Revision comments	This is a first issue.
Revision date	05 July 2017
Revision	1
Safety data sheet status	Approved.

Hazard statements in full

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.
H412	Harmful to aquatic life with long lasting effects.

Disclaimer

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.