Product	Machine Dishwash Detergent 330Plus
Revision date	22 January 2021
Revision	2

Safety Data Sheet (SDS)

according to Regulation (EC) No. 1907/2006

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

1.1 Product identifier

Product name	**Machine Dishwash Detergent 330Plus**
Product no.	**MDL330PLUS**
Other means of identification	No information available.

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

Identified uses	Cleaning agent. For professional use only.
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 90814777
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	Me. Corr 1 - H290
Human health	Skin Corr. 1A - H314
Environment	Not classified

2.2 Label elements

Contains Sodium hydroxide

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

Signal word Danger

Hazard statements

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

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.

2.3 Other hazards

None known.

Section 3: Composition/identification of ingredients

3.1 Substance

Not applicable.

3.2 Mixtures

Name	Product identifier	Regulation (EC) No 1272/2008	%
Sodium hydroxide	CAS-No.: 1310-73-2 EC No.: 215-185-5 REACH Reg No.: 01-2119457892-27-XXXX	Skin Corr. 1A - H314, Me. Corr 1 - H290	5-10%

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.
Sodium Hydroxide : Specific Concentration Limits = Eye Irrit. 2; H319: 0,5 % <= C < 2 %, Skin Corr. 1A; H314: C >= 5 %, Skin Corr. 1B; H314: 2 % <= C < 5 %, Skin Irrit. 2; H315: 0,5 % <= C < 2 %.

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.

Ingestion May cause chemical burns in mouth and throat. May cause severe internal injury.

Skin contact Corrosive. Cause severe skin burns.

Eye contact Extreme irritation of eyes and mucous membranes, including burning and tearing. Corrosive to eyes.

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 Use fire-extinguishing media appropriate for surrounding materials. This product is not flammable.

Unsuitable extinguishing media Water may be ineffective.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products When heated, toxic and corrosive vapours/gases may be formed. During fire, toxic gases (CO, CO2) are formed.

Unusual fire & explosion hazards Flammable hydrogen can form when the product contacts metals.

Specific hazards Fire creates: Carbon monoxide (CO). Carbon dioxide (CO2).

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.

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

For non-emergency personnel Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. 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 Ventilate and evacuate the area. Eliminate all ignition sources. 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. 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. Store separate from other products which react with acids and strong oxidising agents.

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

Component	STD	TWA (8 Hrs)		STEL (15mins)		Notes
Sodium hydroxide	OEL				2 mg/m³	
Sodium hydroxide	WEL				2 mg/m³	

Ingredient comments Ireland, Occupational Exposure Limits 2020.
Workplace Exposure Limits Guidance Note EH40/2005.

8.2 Exposure Controls

Protective equipment

Engineering measures Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment 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. The specific respirator selected must be based on contamination levels found in the work place. Use respiratory protective components with combined A/B/E/KP filter(s) for organic/inorganic/acid/ammonia and particulates. 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. Full contact: Material: Nitrile rubber; Minimum layer thickness: 0.11mm ; Breakthrough time: 480 min. Consult manufacturer for specific 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 Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handing this product. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate. The selected clothing must satisfy the European norm standard EN 943.

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 Liquid.

Colour	Clear yellow.
Odour	Characteristic.
Odour threshold - lower	No information available as testing has not been completed.
Odour threshold - upper	No information available as testing has not been completed.
pH-Value, Conc. Solution	>13
pH-Value, Diluted solution	Not applicable as the product is a concentrated solution.
Melting point	No information available as testing has not been completed.
Initial boiling point and boiling range	No information available as testing has not been completed.
Flash point	Non-Flammable
Evaporation rate	No information available as testing has not been completed.
Flammability state	This product is not flammable.
Flammability limit - lower(%)	Not applicable as this product is not flammable.
Flammability limit - upper(%)	Not applicable as this product is not flammable.
Vapour pressure	No information available as testing has not been completed.
Vapour density (air=1)	No information available as testing has not been completed.
Relative density	1.10 - 1.20 kg/l (at 20°C)
Bulk density	Not applicable as the product is a liquid.
Solubility	Soluble in water.
Decomposition temperature	No information available as testing has not been completed.
Partition coefficient; n-Octanol/Water	Does not apply, the product is a mixture.
Auto ignition temperature (°C)	Not applicable as this product is not flammable.
Viscosity	No information available as testing has not been completed.
Explosive properties	Not classified as explosive.
Oxidising properties	The product does not meet the criteria to be classified as oxidising.

9.2 Other information

Molecular weight	Does not apply, the product is a mixture.
Volatile organic compound	No information available as testing has not been completed.
Other information	None noted.

Section 10: Stability and reactivity

10.1 Reactivity

Reactivity	Reaction with: oxidising agents. Reactive with metals. Acids

10.2 Chemical stability

Stability	Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

Hazardous reactions	For information on hazardous reactions see section 10.1. Attacks metals liberating flammable Hydrogen gas.
Hazardous polymerisation	Unknown
Polymerisation description	Unknown.

10.4 Conditions to Avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time. Avoid extreme temperatures and storing in large quantities and 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 acids and oxidants. Corrosive to metals.

10.6 Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other harmful gases or vapors.

Section 11: Toxicological information

11.1 Information on toxicological effects

Toxicological information	No toxicological information for the overall finished product.
Acute toxicity (Oral LD50)	No information available as testing has not been completed.
Acute toxicity (Dermal LD50)	No information available as testing has not been completed.
Acute toxicity (Inhalation LD50)	No information available as testing has not been completed.
Serious eye damage/irritation	Causes serious eye damage.
Skin corrosion/irritation	The product is classified as a skin corrosion/irritation hazard.
Respiratory sensitisation	The product is not classified as a respiratory hazard.
Skin sensitisation	The product is not classified as a skin sensitisation hazard.
Germ cell mutagenicity	The product is not classified as a mutagen.
Carcinogenicity	The product is not classified as a carcinogen hazard.
Specific target organ toxicity - Single exposure:	
STOT - Single exposure	The product is not classified as a single exposure specific target organ toxin.
Specific target organ toxicity - Repeated exposure:	
STOT - Repeated exposure	The product is not classified as a repeat exposure specific target organ toxin.
Inhalation	Inhalation of mist or vapor may cause respiratory tract irritation.
Ingestion	May cause chemical burns in mouth and throat. May cause severe internal injury.
Skin contact	Corrosive. Cause severe skin burns.
Eye contact	Extreme irritation of eyes and mucous membranes, including burning and tearing. Corrosive to eyes.
Waste management	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
Routes of entry	Eyes, skin, ingestion or inhalation.
Target organs	Eyes, skin, digestive system, respiratory system.
Aspiration hazards:	The product is not classified as an aspiration hazard.
Reproductive toxicity:	The product is not classified as a reproductive hazard.

Section 12: Ecological information

12.1 Toxicity

Acute toxicity - Fish	No information available as testing has not been completed.
Acute toxicity - Aquatic invertebrates	No information available as testing has not been completed.

Acute toxicity - Aquatic plants	No information available as testing has not been completed.
Acute toxicity - Microorganisms	No information available as testing has not been completed.
Chronic toxicity - Fish	No information available as testing has not been completed.
Chronic toxicity - Aquatic invertebrates	No information available as testing has not been completed.
Chronic toxicity - Aquatic plants	No information available as testing has not been completed.
Chronic toxicity - Microorganisms	No information available as testing has not been completed.
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.
Eco toxilogical information	No ecological toxicity available on the overall finished product.

12.2 Persistence and degradability

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

12.3 Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation.
Bioaccumulation factor	No information available as testing has not been completed.
Partition coefficient; n-Octanol/Water	Does not apply, the product is a mixture.

12.4 Mobility in soil

Mobility	The product is soluble in water.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Product is not identified as PBT or vPvB.

12.6 Other adverse effects

Other adverse effects	No information available.

Name	Acute toxicity (Fish)	Acute toxicity (Aquatic invertebrates)	Acute toxicity (Aquatic plants)
Sodium hydroxide	LC50 96 Hours 125.00mg/l Freshwater Fish		

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.

Section 14: Transport information

14.1 UN number

UN no. (ADR)	UN1824
UN no. (IMDG)	UN1824
UN no. (IATA)	UN1824

14.2 UN proper shipping name

ADR proper shipping name	SODIUM HYDROXIDE SOLUTION
IMDG proper shipping name	SODIUM HYDROXIDE SOLUTION
IATA proper shipping name	SODIUM HYDROXIDE SOLUTION

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 A803
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 830/2015 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
Approved code of practice	2020 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019) Workplace Exposure Limits Guidance Note EH40/2005.
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 second issue. [1]Information updated. [2]Information updated. [3]Information updated. [5]Information updated. [6]Information updated. [7]Information updated. [8]Information updated. [9]Information updated. [10]Information updated. [11]Information updated. [12]Information updated. [15]Information updated.
Revision date	22 January 2021
Supersedes date	30 January 2019
Revision	2
Safety data sheet status	Approved.

Hazard statements in full

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

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.