



SAFETY DATA SHEET MACHINE DISHWASH POWDER

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

1.1. Product identifier

Product name	MACHINE DISHWASH POWDER
Product number	LAKE05-AG0040, JMS-AG0041
Internal identification	5003
Container size	5KG, 10KG

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

Identified uses	Machine dishwash powder. For professional use only.
Uses advised against	Not for direct contact with Food or Beverage stuffs. Not for oral consumption. Must not be used where acid based chemicals are present.

1.3. Details of the supplier of the safety data sheet

Supplier	UK - Merlin Chemicals Ltd. Unit 5 Passfield Mill Business Park, Liphook, Hampshire, GU30 7RR Tel: +44 (0)1428 751122 email: technical@kersia-group.com EU - Kersia Deutschland GmbH, Marie-Curie-Straße 23 53332 Bornheim - Sechtem
-----------------	---

1.4. Emergency telephone number

Emergency telephone	Emergency Information:- For accidents and spillages involving this product that pose a threat to the environment, or human health, or require immediate first aid advice call:- +44(0) 1865 407333. Note:- This number will not accept order queries or calls dealing with equipment breakdowns. UK Environment Agency 24hour Advisory Service 0800 807060. Irish Environmental Protection Agency 1890 335599 (This is a Lo Call Number)
----------------------------	---

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Skin Corr. 1B - H314
Environmental hazards	Aquatic Chronic 2 - H411

2.2. Label elements

MACHINE DISHWASH POWDER

Hazard pictograms



Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.
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.
P313 Get medical advice/ attention.

Contains

SODIUM METASILICATE PENTAHYDRATE

Detergent labelling

5 - < 15% phosphates, < 5% chlorine-based bleaching agents

Supplementary precautionary statements

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P405 Store locked up.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM CARBONATE			60-100%
CAS number: 497-19-8	EC number: 207-838-8	REACH registration number: 01-2119485498-19-XXXX	
Classification	Eye Irrit. 2 - H319		

SODIUM METASILICATE PENTAHYDRATE			10-30%
CAS number: 10213-79-3	EC number: 229-912-9	REACH registration number: 01-2119449811-37-XXXX	
Classification	Met. Corr. 1 - H290 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335		

MACHINE DISHWASH POWDER

TROCLOSENE SODIUM, DIHYDRATE		1-5%
CAS number: 51580-86-0	EC number: 220-767-7	REACH registration number: 01-2119489371-33-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification Acute Tox. 4 - H302 Eye Irrit. 2 - H319 STOT SE 3 - H335 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		

The full text for all hazard statements is displayed in Section 16.

Composition comments To the best of our knowledge, all of the substances used in this product are being supported for the relevant application in REACH.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	When it is safe to do so, remove victim immediately from source of exposure. However, consideration should be given as to whether moving the victim will cause further injury.
Inhalation	Remove affected person from source of contamination. Provide rest, warmth and fresh air. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Rinse mouth thoroughly with water. Place unconscious person on the side in the recovery position and ensure breathing can take place. Get medical attention.
Skin contact	Remove contaminated clothing that is not stuck to the skin. Flush area with clean water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
Eye contact	Remove any contact lenses and open eyelids wide apart. Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes and get medical attention.

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

General information	Neat product may cause chemical burns and permanent eye damage. Dilute product may cause irritation to the skin and eyes.
Inhalation	Inhalation of powder dust may result in burns to the mouth, nose and respiratory tract. Inhalation of mists or vapours of diluted product may result in soreness, irritation or burns to the mouth, nose and respiratory tract. If mixed with acid products Chlorine Gas may be evolved, this can result in irritation to eyes and difficulty in breathing. If inhaled this may result in irritation to the mouth nose and respiratory tract.
Ingestion	Unlikely route of exposure without deliberate abuse. If neat chemical is ingested, chemical burning of mouth, throat and GI tract will occur. If dilute chemical is ingested, soreness of mouth, throat and GI tract may occur together with redness and blistering.
Skin contact	This product is corrosive. Causes severe burns.
Eye contact	Causes serious eye damage.

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

Notes for the doctor	Rinse well with water to neutral pH. If mixed with acidic material will produce Chlorine Gas, check for respiratory disorders.
-----------------------------	--

MACHINE DISHWASH POWDER

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Burning produces irritating, toxic and obnoxious fumes.

5.3. Advice for firefighters

Protective actions during firefighting Protective clothing and respiratory protection should be worn when tackling fires involving this product. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

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.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Avoid or minimise the creation of any environmental contamination.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear necessary protective equipment. Stop leak if possible without risk. Avoid spreading dust or contaminated materials. Collect and place in suitable labelled containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections See sections 8, 12 & 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow information as supplied on the product information sheet. Wear protective clothing as described in Section 8 of this safety data sheet. Ensure adequate ventilation of the working area.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly closed original container in a dry, cool and well-ventilated place. Store away from the following materials: Acids. Store below 40°C.

7.3. Specific end use(s)

Specific end use(s) Detergent/Bleach. Refer to Product Information Sheet.

Usage description Use as instructed on the product information sheet.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

MACHINE DISHWASH POWDER

Ingredient comments

Where an exposure level is quoted, a risk assessment should consider if there is a need to monitor the atmosphere of the working environment. Results should be compared against the WEL and/or DNEL information provided. The Long Term WEL refers to total exposure of a worker to a specific substance averaged out over an 8 hour period.

The Short Term WEL refers to a single exposure of a worker to a specific substance over a 15 minute period.

If the Short Term WEL is exceeded and no Long Term Limit is set, further exposure during the working shift is not permitted. Further controls should be implemented to ensure that future exposure to the substance is reduced below the levels set before the activity is repeated/continued. Where no Short Term WEL exists, guidance from the HSE is to use a value of three times the Long Term WEL.

The WEL limits are laid down in the EH40 list as supplied by the HSE. Where a worker is exposed to levels approaching a limit, further exposure control measures should be considered to reduce exposure to the substance. DNEL and/or PNEC information is supplied by manufacturers of substances in accordance with REACH legislation (Regulation (EC) No 1907/2006), and is used to provide suitable risk reduction measures to limit exposure of the user of the substance to a non hazardous level. If the measured level of exposure by a route divided by the DNEL for the route is greater than 1, then further exposure controls should be implemented as described in section 8.2. Where new information becomes available under REACH, this will be passed on as revisions to the Safety Data Sheet.

SODIUM METASILICATE PENTAHYDRATE (CAS: 10213-79-3)

DNEL

Workers - Inhalation; Long term systemic effects: 6.22 mg/m³
 Workers - Dermal; Long term systemic effects: 1.49 mg/kg bw/day
 Consumer - Oral; Long term systemic effects: 0.74 mg/kg bw/day
 Consumer - Inhalation; Long term systemic effects: 1.55 mg/m³
 Consumer - Dermal; Long term systemic effects: 0.74 mg/kg bw/day

PNEC

- Fresh water; 7.5 mg/l
 - marine water; 1 mg/l
 - Intermittent release; 7.5 mg/l

8.2. Exposure controls

Protective equipment



Personal protection

The PPE indicated above is not a COSHH assessment. It represents PPE that should be considered during the manufacture, distribution, use and final disposal stages of this product's life cycle. It is the responsibility of employers to conduct a COSHH/risk assessment to determine appropriate PPE levels. The information given below should be used to support this assessment. Where possible replace manual processes with automated or closed processes to minimise contact with the product.

Eye/face protection

Wear approved safety goggles. Refer to EN Standard 166 to select appropriate level of protection.

Hand protection

Rubber (natural, latex). Neoprene. Polyvinyl chloride (PVC). Refer to Standard EN 374 and EN 16523

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination. Reference to EN 13832 and EN 943 is useful when selecting footwear and clothing.

MACHINE DISHWASH POWDER

Hygiene measures	Promptly remove non-impervious clothing that has become contaminated, provided it is not adhered to the skin. Contaminated clothing and shoes must be discarded. Provide eyewash station and safety shower.
Respiratory protection	No specific recommendation made, but respiratory protection must be used if the general level exceeds the Workplace Exposure Limit.
Environmental exposure controls	Do not allow the substance to contaminate surface water/ground water. See points 6, 12 & 13. Discharge of solutions into effluent systems (including municipal drains) or to surface water are expected to cause significant pH changes. Discharge of solutions should be carried out such that pH changes are minimised. Where necessary pH buffering measures should be adopted.
General Health and Safety Measures.	The above requirements refer to the neat chemical. In-use solutions may have a lower classification, however, a full risk assessment should be carried out before handling any chemical(s). Risk assessments should refer to COSHH and any other relevant legislation or industry specific guidelines governing the use of chemicals.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Solid.
Colour	White.
Odour	Chlorine.
Odour threshold	Not applicable.
pH	Aqueous solutions are basic. pH (diluted solution): 10.5 - 11.5 @10%
Melting point	Not applicable.
Initial boiling point and range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not applicable.
Bulk density	~2.5g/cm ³
Solubility(ies)	Soluble in water.
Partition coefficient	Technically not feasible.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Viscosity	Not determined.
Explosive properties	Not applicable.

MACHINE DISHWASH POWDER

Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.
9.2. Other information	
Refractive index	Not applicable.
Particle size	Not applicable.
Molecular weight	Not applicable.
Volatility	Not applicable.
Saturation concentration	Not applicable.
Critical temperature	Not applicable.
Volatile organic compound	Not applicable.
Explosive Properties	Not Classified as Explosive
Storage Temperature Range	0 - 40°C

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Not expected to react when correctly stored and used. Mixing with other chemicals may produce unexpected reactions. Will produce toxic Chlorine gas in contact with acids. The solution is strongly alkaline and reacts with strong acids with heat generation.
-------------------	---

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
------------------	---

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Refer to section 10.1. Contact with acids liberates toxic gas.
---	--

10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.
----------------------------	---

10.5. Incompatible materials

Materials to avoid	Acids. Strong reducing agents.
---------------------------	--------------------------------

10.6. Hazardous decomposition products

Hazardous decomposition products	Will evolve Chlorine Gas in contact with Acids.
---	---

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	45,235.73
-------------------------	-----------

Inhalation

Inhalation of neat powdered product is unlikely without deliberate abuse, but will result in burns to the mouth, nose and respiratory tract. Inhalation of mists or vapours of diluted product may result in soreness, irritation or burns to the mouth, nose and respiratory tract. Mixing with acid will evolve toxic Chlorine Gas.

MACHINE DISHWASH POWDER

Ingestion	May cause chemical burns in mouth, oesophagus and stomach.
Skin contact	Causes severe burns.
Eye contact	Risk of serious damage to eyes. May cause permanent eye injury.

SECTION 12: Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish Note:- pH values greater than 10.5 may be fatal to fish and other aquatic organisms, there may also be damage to aquatic plants.

12.2. Persistence and degradability

Persistence and degradability This product consists mainly of inorganic components for which biodegradation assessment is not applicable. The product meets the requirements of the European Detergents Regulation 648/2004 as amended.

12.3. Bioaccumulative potential

Bioaccumulative potential Not expected to bioaccumulate.

Partition coefficient Technically not feasible.

12.4. Mobility in soil

Mobility The product contains substances which are water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered. Do not mix with other chemicals.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	1759
UN No. (IMDG)	1759
UN No. (ICAO)	1759
UN No. (ADN)	1759

14.2. UN proper shipping name

Proper shipping name (ADR/RID) CORROSIVE SOLID, N.O.S. (CONTAINS SODIUM METASILICATE PENTAHYDRATE, TROCLOSENE SODIUM, DIHYDRATE)

MACHINE DISHWASH POWDER

Proper shipping name (IMDG) CORROSIVE SOLID, N.O.S. (CONTAINS SODIUM METASILICATE PENTAHYDRATE, TROCLOSENE SODIUM, DIHYDRATE)

Proper shipping name (ICAO) CORROSIVE SOLID, N.O.S. (CONTAINS SODIUM METASILICATE PENTAHYDRATE, TROCLOSENE SODIUM, DIHYDRATE)

Proper shipping name (ADN) CORROSIVE SOLID, N.O.S. (CONTAINS SODIUM METASILICATE PENTAHYDRATE, TROCLOSENE SODIUM, DIHYDRATE)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C10
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

MACHINE DISHWASH POWDER

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

National regulations	UK Adoption and Implementation of the UN Globally Harmonised System (GHS) on Classification and Labelling of Chemicals (GB CLP) and considers UK National REACH legislation.
EU legislation	European Regulation (EC) No 1272/2008 (as amended) on Classification, Labelling and Packaging of Substances and Mixtures. Also considered is the REACH Regulation (EC) No.1907/2006 (as amended).

15.2. Chemical safety assessment

Pcs Information

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	(EC) No. 1272/2008 : EU Regulation on Classification, Labelling and Packaging of Substances and Mixtures. NPIS - National Poisons Information Service. vPvB - Very Persistent, Very bioaccumulative. PBT - Persistent, Bioaccumulative & Toxic. REACH - Registration, Evaluation, Authorisation & restriction of CHemicals (Regulation EC 1907/2006). DNEL - Derived No Effect Limit. PNEC - Predicted No Effect Concentration. COSHH - Control of Substances Hazardous to Health. NOEC - No Observed Effect Concentration. NOAEL - No Observable Adverse Effect Level. LC50 - Lethal Concentration 50 - The environmental contamination at which 50% mortality is reached over a fixed time scale. EC50 - Effective Concentration 50 - Concentration of a substance in water at which 50% of the maximum biological response is reached. Industry - Refers in section 8 to application of the substance in an industrial process. Professional - Refers in section 8 to application/use of the preparation/product in a skilled trade premises.
General information	This document is a Safety Data Sheet, NOT a CoSHH assessment. It is the customer's responsibility to conduct a full CoSHH assessment, taking into account the information held within this document along with other local factors considered in a risk assessment. The Risk and Hazard statements listed below are the full text of abbreviations used in this document. They are not the final classification, for this refer to section 2.
Revision comments	Amendment to the emergency phone number in Section 1.4.
Revision date	11/11/2021
SDS number	23424
Hazard statements in full	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.

MACHINE DISHWASH POWDER

REACH extended MSDS comments

REACH requires that persons handling chemicals should take the necessary risk management measures, in accordance with assessments from manufacturers and importers of chemical substances. The relevant recommendations must be passed along the supply chain. These assessments are generally reported in Exposure Scenarios. Where Exposure Scenarios have been provided for substances used in this product, the relevant information is incorporated into the safety data sheet.

END OF SAFETY DATA SHEET

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.