SAFETY DATA SHEET LAUNDRY DESTAIN PLUS

According to Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures.

| SECTION 1: Identification of the substance/mixture and of the company/undertaking | | |
|---|---|--|
| 1.1. Product identifier | | |
| Product name | LAUNDRY DESTAIN PLUS | |
| 1.2. Relevant identified uses of | of the substance or mixture and uses advised against | |
| Identified uses | Laundry destaining powder. For professional use only. | |
| Uses advised against | Not for oral consumption. Use of this product for cleaning by hand is not recommended. Must not be used where acid based chemicals are present. | |
| 1.3. Details of the supplier of | the safety data sheet | |
| Supplier | MERLIN CHEMICALS Unit 5, Passfield Mill Business Park, Liphook, Hants, GU30 7RR +44 (0) 1428 751122 +44 (0) 1428 751133 technical@merlinchemicals.co.uk | |
| 1.4. Emergency telephone number | | |
| Emergency telephone | Out of Office Hours 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) 7050 265597. 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. | |
| SECTION 2: Hazards identification | | |

| 2.1. Classification of the substance or mixture | |
|---|----------------------|
| Classification | |
| Physical hazards | Met. Corr. 1 - H290 |
| Health hazards | Skin Corr. 1B - H314 |
| Environmental hazards | Not Classified |
| 0.0 Label elemente | |

2.2. Label elements

Pictogram



| Signal word | Danger |
|-------------------|---|
| Hazard statements | H290 May be corrosive to metals. |
| | H314 Causes severe skin burns and eye damage. |

| Precautionary statements | P280 Wear protective gloves, eye and 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/shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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 | 15 - < 30% oxygen-based bleaching agents |
| Supplementary precautionary statements | 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. Note: "H290 May Be Corrosive to Metals" relates to the concentrated product.

SECTION 3: Composition/information on ingredients

| SODIUM CARBONATE | | 30-60% |
|---------------------------|----------------------|---------------------------------|
| CAS number: 497-19-8 | EC number: 207-838-8 | |
| Classification | Classificat | tion (67/548/EEC or 1999/45/EC) |
| Eye Irrit. 2 - H319 | Xi;R36 | · · · · |
| SODIUM PERCARBONATE | | 10-30% |
| CAS number: 15630-89-4 | EC number: 239-707-6 | REACH registration number: 01- |
| | | 2119457268-30-0000 |
| Classification | Classificat | tion (67/548/EEC or 1999/45/EC) |
| Ox. Sol. 2 - H272 | O; R8. Xn | ; R22. Xi; R41 |
| Acute Tox. 4 - H302 | | |
| Eye Dam. 1 - H318 | | |
| SODIUM METASILICATE PENTA | HYDRATE | 10-30% |
| CAS number: 10213-79-3 | EC number: 229-912-9 | |
| Classification | Classificat | tion (67/548/EEC or 1999/45/EC) |
| Met. Corr. 1 - H290 | C; R34. Xi | |
| Skin Corr. 1B - H314 | | |
| STOT SE 3 - H335 | | |
| Eye Dam. 1 - H318 | | |

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

| SECTION 4: First aid measures | |
|--|--|
| 4.1. Description of first aid measures | |

2/11

| 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. | |
| 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 immedia | te medical attention and special treatment needed | |
| Notes for the doctor | Rinse well with water to neutral pH. Check for abrasion to the surface of eyes. | |
| SECTION 5: Firefighting meas | sures | |
| 5.1. Extinguishing media | | |
| Suitable extinguishing media | Use alcohol-resistant foam, carbon dioxide or dry powder to extinguish. | |
| 5.2. Special hazards arising from the substance or mixture | | |
| Specific hazards | In contact with some metals (Aluminium, Zinc and their Alloys) Hydrogen Gas is formed, which may form an explosive mixture with air. Note - Comment refers to neat product. | |
| Hazardous combustion products | Oxides of carbon. Toxic gases or vapours. | |
| 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 | e 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 upWear 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 | Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place. Store below 40°C. Store away from the following materials: Acids. Flammable/combustible materials. |
|--------------------------|---|
| 7.3. Specific end use(s) | |
| Specific end use(s) | Laundry powder. 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

Occupational exposure limits

SODIUM CARBONATE

Long-term exposure limit (8-hour TWA): 8 mg/m³

Ingredient commentsWhere 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. This is taken from the Chemical Agents Directive (98/24/EC). 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/m ³ 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/m ³ 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

Hand protection

protection

Other skin and body

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.

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

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

| 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 | Powder. |
|--|--|
| Colour | White. |
| Odour | Characteristic. |
| Odour threshold | Not applicable. |
| рН | Aqueous solutions are basic. pH (concentrated solution): 13 - 14 |
| 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/cm3 |
| 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. |

| 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 rea | activity | |
| 10.1. Reactivity | | |
| Reactivity | Not expected to react when correctly stored and used. Mixing with other chemicals may | |
| | produce unexpected reactions. 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. | |
| 10.4. Conditions to avoid | | |
| Conditions to avoid | Avoid excessive heat for prolonged periods of time. | |
| 10.5. Incompatible materials | | |
| Materials to avoid | Acids. Oxidising agents. Flammable/combustible materials. Contact with Soft Metals such as Aluminium can produce Hydrogen Gas. Note:- Comment refers to very high concentration solutions. Normal use use solutions are not expected to pose a problem. | |
| 10.6. Hazardous decomposition products | | |
| SECTION 11: Toxicological information | | |
| 11.1. Information on toxicologi | cal effects | |
| Acute toxicity - oral | | |
| ATE oral (mg/kg) | 4,242.05 | |
| 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. | |
| 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 Inform | mation | |
| Ecotoxicity | This 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. | |
| 12.1. 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 potentia | | |
| 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 vPvE | 3 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 consid | erations | |
| 13.1. Waste treatment method | s | |
| 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. Small volumes of use solution can be disposed of to sewers. | |
| SECTION 14: Transport inform | nation | |
| 14.1. UN number | | |
| UN No. (ADR/RID) | 3262 | |
| UN No. (IMDG) | 3262 | |
| UN No. (ICAO) | 3262 | |
| UN No. (ADN) | 3262 | |
| 14.2. UN proper shipping nam | e | |
| Proper shipping name (ADR/RID) | CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM METASILICATE PENTAHYDRATE) | |
| | | |

| Proper shipping name (IMDG) | CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM METASILICATE PENTAHYDRATE) | |
|----------------------------------|---|--|
| Proper shipping name (ICAO) | CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM METASILICATE PENTAHYDRATE) | |
| Proper shipping name (ADN) | CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM METASILICATE PENTAHYDRATE) | |
| 14.3. Transport hazard class(es) | | |

| ADR/RID class | 8 |
|-----------------------------|----|
| ADR/RID classification code | C6 |
| ADR/RID label | 8 |
| IMDG class | 8 |
| ICAO class/division | 8 |
| ADN class | 8 |
| | |

Transport labels



| 14.4. Packing group | | | |
|---|--------------------------|--|--|
| ADR/RID packing group | III | | |
| IMDG packing group | ш | | |
| ADN packing group | ш | | |
| ICAO packing group | ш | | |
| 14.5. Environmental hazards | | | |
| Environmentally hazardous sul | bstance/marine pollutant | | |
| No. | | | |
| 14.6. Special precautions for user | | | |
| EmS | F-A, S-B | | |
| ADR transport category | 3 | | |
| Emergency Action Code | 2X | | |
| Hazard Identification Number (ADR/RID) | 80 | | |
| Tunnel restriction code | (E) | | |
| 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | | | |
| SECTION 15: Regulatory information | | | |

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

EU legislation

European Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures. This replaces Directive 67/548/EEC - Classification, Packaging and Labelling of Dangerous Substances and Regulation (EC) No. 453/2010 relating to the Classification, Packaging and Labelling of Dangerous Preparations. Also considered is the REACH Regulation (EC) No.1907/2006.

15.2. Chemical safety assessment

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 | Review in line with CLP Regulation. | |
| Revision date | 04/05/2015 | |
| SDS number | 22690 | |
| Hazard statements in full | H272 May intensify fire; oxidiser. | |
| | 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. | |
| REACH extended MSDS | REACH requires that persons handling chemicals should take the necessary risk | |
| comments | management measures, in accordance with assessments from manufacturers and importers | |
| | of chemical substances. The relevent 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 relevent information is incorporated into the 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.