

Transport, Environment & Design

# Ladds Recycling Yard Environmental Management System Summary

March 2026



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Appendix D	Pre-Start Procedures
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# Revision Schedule

Revision	Author	Description	Date
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# 1. Introduction

## 1.1 Commission & Background

1.1.1 This document is a summary Environmental Management System (EMS) that been prepared to support the application by Harts Haulage to vary their environment permit.

1.1.2 This EMS has been developed with reference to Environment Agency guidance<sup>1</sup> to support Harts Haulage's operation of a not hazardous waste treatment and transfer station at Ladds Yard, Wilson Way, Redruth, Cornwall. The Site produces soil, soil substitutes and aggregates.

1.1.3 The Site operates under an Environmental Permit (ref: GB3002HA). In July 2025 Harts Haulage applied to vary the permit to include soil washing, a physico-chemical treatment of waste. In addition other changes to the permit included:

- The maximum throughput is to be increased to 250,000 tonnes/year;
- Increase maximum wastes stored on-Site to 75,000 tonnes/year; and
- Amendments to waste codes and operating procedures.

1.1.4 This EMS takes into account the proposed changes to the activities and operations on-Site. Moving forwards the Site will continue to operate as a waste recycling facility with similar non-hazardous waste types imported for separation and treatment. In addition, soil and aggregate washing (a physical-chemical treatment activity as opposed to separation or sorting) will take place. Hazardous waste will not be accepted at the Site, nor will any wastes in a liquid form.

## 1.2 Environmental Management System

1.2.1 An EMS is a living document and should be reviewed periodically and kept up to date. With reference to the Site, the first major review should take place following first implementation of the changes proposed and prior to the commencement of new operations.

1.2.2 The complexity of an EMS should be commensurate with the scale and nature of operations undertaken. This EMS has been deliberately developed to be relatively straightforward given the relatively low risk activities undertaken by Harts Haulage.

## 1.3 Management Commitment

1.3.1 Harts Haulage's EMS includes a commitment from management to:

- Ensure Harts Haulage complies with all statutory and regulatory requirements related to its business activities;
- Communicate to all Staff the importance of meeting all relevant statutory and regulatory requirements;
- Conduct management reviews of the EMS; and
- Ensure availability of resources to allow effective implementation of the EMS.

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<sup>1</sup> <https://www.gov.uk/guidance/develop-a-management-system-environmental-permits> [Accessed 27 February 2026]

## 2. Site Infrastructure

### 2.1 Site Infrastructure Plan

- 2.1.1 A copy of the Site Infrastructure Plan is presented in **Appendix A**. The principal infrastructure within the permitted area comprises of a waste processing yard surfaced by concrete hardstanding, including external waste tipping, a soil wash plant and storage bays.
- 2.1.2 The storage and processing of waste soils and aggregates do not take place within an enclosed building which has been accounted for as part of this EMS, the Site's Environmental Risk Assessment<sup>2</sup> and supporting Noise Management Plan (NMP) and Dust Management Plan (DMP).
- 2.1.3 Immediately west of the permitted area (i.e. the Site) is an additional yard also owned and operated by Harts Haulage for their lorry business. These are not formally segregated. This area to the west includes several buildings containing welfare facilities, offices as well as parking bays for vans and lorries. This area is not underlain entirely by hardstanding, however Harts Haulage is in the process of surfacing this area with concrete (due to be completed by end March 2026).
- 2.1.4 No waste treatment or storage is permitted outside of the bounds of the permitted area.
- 2.1.5 Site infrastructure does not include outside lighting to comply with the Site's Planning Permission. Most operations take place in daylight hours.

### 2.2 Vulnerable Locations

- 2.2.1 A plan showing areas particularly vulnerable to pollution that are on or near the Site is included in **Appendix A**.

### 2.3 Drainage

- 2.3.1 The wastes to be accepted onto the Site specifically exclude liquid wastes and also waste-types that could potentially have a 'wet' component. All storage and treatment of waste on the Site takes place on concrete hardstanding.
- 2.3.2 Any rainfall that falls onto the hardstanding is directed towards the belowground structure comprising of three large chambers located to the west of the permitted area. These chambers discharge into a wedgepit (estimated capacity 200 m<sup>3</sup>) which then can be pumped out by the Operator for use for dust suppression or to replenish the levels in the soil wash plant as required. Harts Haulage recently installed an additional wedgepit adjacent to the primary wedgepit of similar capacity to provide redundancy to the system.
- 2.3.3 Inspection of the wedgepits is the responsibility of the Site Manager or nominated daily and is to take place daily during periods of heavy rainfall; or at least weekly during other times.
- 2.3.4 There is a closed-loop soil wash plant on the south-east edge of the Site located on hardstanding. The wash plant is not located within an enclosed building, however, is underlain by a sealed drainage system. Primarily, the soil wash plant is designed to reuse water, minimising the loss and reducing the need for fresh water intake.
- 2.3.5 In the event of a pollution or contamination incident (e.g. fuel leakage) on the Site the wedgepit should allow for sediments or fuel spills to settle out of the system and disposed of appropriately.

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<sup>2</sup> Horizon (27 February 2026) Ladds Recycling Yard. Environmental Risk Assessment. Ref: HCE1198.ERA.Rev3

## 2.4 Water, Gas and Electricity

- 2.4.1 The Site is not supplied with mains gas and bottled gas is not used at the Site.
- 2.4.2 The locations of mains water and electricity supplies on-Site are shown on the Site Infrastructure Plan (**Appendix A**). There are no known underground services know on the Site other than shallow electrical ducting below the concrete surfacing that connects various parts of the wash plant.

## 3. Site Operations

3.1.1 Harts Haulage operates a waste recycling facility at Ladds Recycling Yard Site. Soil and aggregate washing (a physico-chemical treatment activity) plus sorting and separation (a physical treatment activity) take place.

### 3.2 Specified Waste Management Operations

3.2.1 The activities on-Site comprise the treatment of waste to produce soil, soil substitutes and aggregates. **Table 3-1** details the planned activities on-Site (note this section to be updated to match the updated permit):

Activity Reference	Description of specific activity	Limits of specific activity
AR1 – treatment of waste to produce soil, soil substitutes and aggregates.	R3: Recycling or reclamation of organic substances which are not used as solvents.	Treatment is limited to sorting, separation, screening, crushing, blending or washing of waste for recovery as a soil, soil substitute or aggregate.
	R5: Recycling or reclamation of other inorganic materials.	No more than 250,000 tonnes of waste in total shall be treated per year.
AR2 – Storage of waste.	R13: Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).	Secure storage of no more than 75,000 tonnes wastes pending treatment.  No waste shall be stored for longer than 12 months.

**Table 3-1:** Permitted Activities

### 3.3 Specified Waste Types and Quantities Accepted

3.3.1 A list of the acceptable waste types is presented in **Appendix B**. The annual maximum permitted throughput is 250,000 tonnes. The maximum waste stored on-Site at any one time is limited to 75,000 tonnes.

### 3.4 Process Description

3.4.1 A summary of the process flow of operating techniques is presented below.

#### *Waste Acceptance & Inspection*

- Information on the nature of the material is obtained from the Customer at the time of booking as to the type of waste. Most of the imported waste originates from construction, mining or agriculture activities local to Ladds Recycling Yard.
- Waste materials are imported to the Site using Harts Haulage tipper lorries.
- On arrival at the source site, a visual inspection is made for unacceptable materials by the Harts Haulage driver, taking account of Hart's Haulage waste acceptance policy (**Appendix C**).
- On arrival at Ladds Yard, wastes are discharged into the receiving bay or the appropriate area on Site.
- Further visual inspection to determine conformance by Ladds Yard site operatives. In the event small amounts of contaminants are found to be present in the load that do not render

the whole load unacceptable (e.g., trace pieces of wood or plastic) these contaminants may be removed manually prior to processing without rejection of the entire load.

- In the event non-conforming wastes are identified, the load is either left with the Customer, returned to the Customer, or quarantined at Ladds Recycling Yard until agreement is reached with the Customer as to how the non-compliant materials are to be managed and disposed of.

#### *Waste Storage*

- Waste can be stored for up to 12 months prior to recycling or recovery.
- Waste storage areas are formally checked each day by the Harts Haulage Site Manager or nominated representative.

#### *Waste Sorting, Screening & Treatment*

- Wastes are physically sorted and separated into different waste streams using Site plant (e.g., excavators, bulldozers).
- Suitable waste are crushed, screened or sent through the wash plant based on visual inspection of the material (i.e., likely most suitable processing route), Hart's Haulage needs plus anticipated future Client requirements (e.g., depending on the nature of any product Harts Haulage needs to produce).
- Processed waste is stockpiled separately, subject to testing per Harts Haulage's WRAP protocol and then recovery.

#### *Product Dispatch*

- Following treatment and testing to confirm conformance, aggregates exiting the treatment process are stored in dedicated areas (see Site Infrastructure Plan in **Appendix A**) pending sale and dispatch off-Site.

3.4.2 Appropriate duty of care paperwork is maintained for a minimum of two years.

3.4.3 A formal review of all processes is to be undertaken once operations are established at the new Site, routinely be undertaken on an annual basis and as appropriate following an incident or change in activities.

## 3.5 Waste Storage Plan

3.5.1 The extent of the permitted activities is shown in the Site Infrastructure Plan (**Appendix A**). All waste stockpiles are placed on concrete hardstanding. The location of waste and product storage areas may evolve however clear separation is to be maintained between waste and product stockpiles at all times.

3.5.2 The Site is secured with gated access. Gates are securely locked shut at all times outside the hours of operation. The Site perimeter is bound by fences. The boundary fence is inspected at least once per week to check it is intact. CCTV security cameras are installed at the Site. There is a Site presence nearly 24 hours per day.

## 3.6 Fire Prevention

3.6.1 No fires are permitted on-Site.

3.6.2 Given the non-combustible nature of the waste codes accepted on-Site (**Appendix C**) a standalone Fire Prevention Plan (FPP) has not been prepared.

3.6.3 The main risk from fires is associated with vandalism to Site plant, see Accident Management Plan in Section 4.2.

### 3.7 Odour Management

3.7.1 Odour is not a significant issue associated with Harts Haulage's activities at Ladds Recycling Yard given the types of waste handled. In the event an odour is noted, the Site Manager or nominated deputy is to be informed to allow an assessment of the area and mitigation measures to be implemented.

### 3.8 Noise Management

3.8.1 Noise management is to be in accordance with the standalone Noise Management Plan.

### 3.9 Pest Management

3.9.1 Thus far, the Site has not had any reported issues with pests, scavenging animals or birds due to the nature of the waste accepted. As part of routine housekeeping the Site conducts litter collections after windy weather on an as required basis to ensure the Site, including its boundaries, is kept clear of litter and rubbish irrespective of its source.

3.9.2 Should pests or scavenging animals be noted the Site Manager or nominated deputy is to be informed to allow an assessment of the area and mitigation measures to be implemented.

### 3.10 Dust Management

3.10.1 Noise management is to be in accordance with the standalone Dust Management Plan.

### 3.11 Site Equipment and Maintenance Plan

3.11.1 A copy of Harts Haulage's pre-start inspection procedure is included as **Appendix D**.

3.11.2 Equipment and machinery are maintained with reference to the manufacturer's recommendations.

3.11.3 Outside contractors are employed to maintain plant in a safe and serviceable condition. As a minimum yard plant is serviced every six months, with repairs as required. Vehicles are formerly inspected every six to eight weeks.

3.11.4 A formal written record is maintained of all equipment maintenance by the Technically Competent Manager or a nominated representative.

### 3.12 Washplant Operation

3.12.1 The operation of the washplant is subject to stringent pre-start checks as per **Appendix D** prior to daily operation. This includes visual inspection of the feedstock and wash water both prior to and during operation. For example, any water discharged from the centrifuge passes into a clear vessel to enable visual checks and if required sampling for monitoring purposes (see Section 3.13 below).

3.12.2 Flocculants and anti-foaming agents, designed to be non-harmful to the environment, may be added to the wash water. The MSDS for the additives used on-Site are included in **Appendix E**; the rate these are added is to be monitored by the Site Manager or nominated deputy:

- **Anti-Foaming Agents.** The requirement for anti-foaming agents is dependent on the level of organics to be removed from the waste stream. Careful monitoring of the influent waste stream by the Site Manager to minimise organic content will result in minimal requirement for the addition of anti-foaming agents.

- **Flocculants** are used to accelerate removal of suspended solids. The rate of flocculant addition is dependent on the percentage of cohesive soils (i.e., silt and clay particles) in the incoming waste stream. Careful monitoring of the influent waste stream by the Site Manager is intended to minimise the volume of silt and clay imported to Site.

3.12.3 Water recovered from the filter press is to be recirculated to the plant. Any residual flocculant will therefore be recirculated as part of the process.

3.12.4 Filter cake recovered from the press in the form of the washed-out sediment is predominantly clay is treated as a waste on-Site pending off-site disposal or recovery.

### 3.13 Washplant Monitoring

3.13.1 Given the aim of the wash plant is to screen and segregate different soil fractions, as opposed to cleaning chemical contaminants, frequent monitoring of the wash plant is not required. Monitoring is undertaken on the following basis:

- **Routine Monitoring.** Quarterly samples are to be collected of the wash water and filter cake for the first 24 months operation, reducing to six-monthly for the next 24 months, then annual thereafter assuming elevated concentrations of contaminants of concern are not detected.
- **Additional Monitoring.** In the event that unacceptable chemical contaminants are identified in the recycled aggregate (e.g., testing as part of compliance) additional testing of the wash water and filter cake would take place.

3.13.2 Samples of the wash water are to be obtained from the plant and sent to a UKAS accredited laboratory. As a minimum, samples are to be tested for dissolved metals (as a minimum to include copper, total chromium, arsenic, tin, lead and zinc), total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH) and pH.

3.13.3 All monitoring results are to be maintained on-Site by Harts Haulage for inspection and comparison to evaluate any trends in contaminant levels.

3.13.4 The primary source of monitoring for compliance purposes will be chemical concentrations in the recycled aggregate as opposed to contaminant concentrations in the wash water. However should visual evidence of oil contamination be observed this would trigger the need to change the water.

3.13.5 The Site Manager is responsible for training operatives in undertaking inspection and monitoring tasks.

3.13.6 In the event dirty wash water is required to be drained from the wash plant, this is to be disposed off-Site as waste to a suitably licenced facility with replacement water added to the system. Contaminated wash water will be pumped into road tankers for transport off-Site.

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## 4. Contingency Plan & Accident Prevention

### 4.1 Contingency Plan

- 4.1.1 Review of the weather forecast is required daily by the Site Manager. In the event extreme weather is forecast, the plans for moving and/or processing waste may be reviewed.
- 4.1.2 Given the relatively benign nature of the waste handled on-Site, the potential impact on the environment from a breakdown or enforced shutdown is considered to be relatively minor.
- 4.1.3 In the event that contamination levels exceed the permissible levels in processed material following testing, the Site will cease operations until a plan has been developed (e.g., replacement of wash water in wash plant) or repeat testing confirms levels are below acceptable levels.
- 4.1.4 The Site is not located in an area considered to be at risk from flooding, therefore a flood related response plan has not been developed.
- 4.1.5 In the event that Radioactive or Explosive Waste is delivered to the Site it shall be reported to the Environment Agency immediately. No further waste is received at the Site until such time as the unauthorised waste has been appropriately contained and a plan developed for its disposal.
- 4.1.6 Non-conforming materials are managed in terms of their H&S risk and risk to the environment. Dumpy bags are available for sealing hazardous materials and oil drums for storing wet wastes.

### 4.2 Accident Prevention & Management Plan

- 4.2.1 It is the responsibility of the Technically Competent Manager to ensure that the Accident Management Plan (AMP) is communicated to site staff and that this is recorded.
- 4.2.2 Potential incidents or events that could result in pollution include:

Potential Incident	Likelihood	Mitigation Measures	Consequences
Equipment Breakdown	Medium <i>Additional plant generally available on-Site to allow the Site to continue to function (other than the wash plant). In a worst-case scenario waste import to be ceased temporarily</i>	An appropriate planned preventative maintenance programme is implemented for plant/equipment as well as any associated infrastructure, as required by the EMS to minimise the potential for breakdown. Seal off working area. Cease waste import.	Low
Enforced Shutdown	Low <i>Cessation of waste import and treated materials export.</i>	Secure waste within compound. Secure Site including locking gates. Reduce staffing levels as appropriate whilst still maintaining skeleton staff to manage Site including conducting inspections, litter management, drainage.	Low
Fire	Low <i>No combustible wastes to be imported to Site. Any fire would be localised (e.g. within Site plant).</i>	Permitted wastes do not include flammable material. Care shall be taken to ensure that no flammable waste enters the Site, and any flammable material used for plant work are securely stored away from any location that may include open flame.  Site plant secured to minimise potential for tampering. Fire extinguishers are located in the cabs of plant, in Hart's Haulage lorries and in the Site office (located to the west of the permitted area).	Low
Vandalism	Medium <i>Damage to plant requiring repair.</i>	Maintain fence and securely lock gate when Site not operational. Site plant secured to minimise potential for tampering. Ensure plant containing flammable fuels not stored sufficiently close to a fence such that a vandal could set fire to materials from outside of the Site.	Low
Flooding	Low	Site is not located in an area considered to be at risk of flooding.	Low
Chemical Spill	Medium <i>Any spill (e.g. from Plant) will be localised and readily contained.</i>	The wastes to be accepted onto the site specifically exclude liquid wastes and also waste-types that could potentially have a 'wet' component. In the event a spillage arises within the tipping bay this will drain to the Site underground drainage system which can be sealed off.  Hazardous fluids (in terms of diesel and oils) are stored on site. These are stored within suitable containers and in accordance with good practice, either on drip trays under cover for smaller quantities (such as for hydraulic oil for mobile plant), or within suitably constructed bunded areas, with a capacity in excess of 110%.  Site staff are trained in the use of accident and emergency equipment, including spill kits, located in a designated area within the main building. Actions undertaken include containing the spill, sealing off the Site interceptor (in the event of a large spill) and managing contaminated waste and cleaning equipment.	Low
Excluded Waste Types	Medium	Appropriate waste acceptance procedures have been put into place to prevent the acceptance of unsuitable wastes.	Low

		Non-conforming materials are managed in terms of their H&S risk and risk to the environment. Dumpy bags are available for sealing hazardous materials and oil drums for storing wet wastes.	
Radioactive or Explosive Waste	Low	Report to the Environment Agency immediately. Seal area off. Cease import of waste to Site until such time as waste is contained and a plan developed for its disposal.	Low

**Table 4-1:** Potential Incident Identification

4.2.3 In addition to the above, the following additional mitigation measures are implemented Site-wide:

- A trained first aider is always present on-Site when processing activities are being undertaken.
- Any failures in the integrity of the Site security measures and / or integrity measures shall be repaired immediately.
- Hazardous fluids (in terms of diesel and oils) are stored on site. These are stored within suitable containers and in accordance with good practice, either on drip trays under cover for smaller quantities (such as for hydraulic oil for mobile plant), or within suitably constructed bunded areas, with a capacity in excess of 110%. Of note, a maximum 2,500 litres of red diesel is stored on-Site within a bunded tank.
- All plant and equipment shall be attended to during filling to prevent spillage.
- Measures are taken to ensure that mud and other debris is not deposited on the public highway. This includes sheeting vehicles carrying loose materials and sweeping / washing the Site access road and public highway of any mud, slurry or other debris deposited as a result of Site activities. In the event that cleaning of the roads is required routinely, changes to Site practices will be implemented and/or construction of wheel cleaning equipment.

4.2.4 In the event that the facility has to be closed for any reason, loads will be diverted to other permitted facilities for the duration of the closure.

4.2.5 The AMP is to be reviewed at the same frequency as the EMS (see Section 9 of the EMS).

4.2.6 A list of Emergency contacts is presented in **Tables 5-1** and **5-2** of the EMS.

4.2.7 A list of the typical waste materials stored at the Site is presented in Section 3 of the EMS.

4.2.8 The Site Accident Book is used to record accidents.

## 4.3 Online Security

4.3.1 Harts Haulage uses as third party company to maintain its computer systems including backing up data to a remote cloud based system.

4.3.2 The main online security risk has been identified as loss of records relating to the Site; this would potentially affect the next quarterly waste return however given the back-up systems in place the risk is considered low. This risk will be further mitigated by Harts Haulage moving to a cloud-based digital waste tracking system over the next six months.

## 5. Contact Information

### 5.1 Emergency Numbers

Contact	Details
<b>Emergency Services</b>	
Emergency Services	Tel: 999
Environment Agency (Incident Hotline)	Tel: 0800 80 70 60
Environment Agency (Local Office)	Address: Sir John Moore House, Victoria Square, Bodmin, Cornwall, PL31 1EB Tel: 0370 850 6506
Devon Police	Tel: 01392 420320
<b>Health</b>	
Local Hospital (Minor Injuries Unit)	Camborne Redruth Community Hospital, Burnoose Terrace, Redruth TR15 3ER
Local Hospital (A&E Department)	Royal Cornwall Hospital, Seventy-nine Ln, Treリスケ, Truro TR1 3LJ
<b>Utilities</b>	
Western Power Distribution (National Grid)	Tel: 0800 6783 105
South West Water	Tel: 0344 346 2020

**Table 5-1:** Emergency Contact Numbers

### 5.2 Contact Information for the Public

5.2.1 A notice board is placed at the Site Entrance. A copy of the notice board at the existing site is shown in **Figure 5-1** below:



**Figure 5-1:** Site Noticeboard

Contact	Details
Site (Emma Hart, WAMITAB Holder)	Tel: 01209 211018

**Table 5-2:** Contact Information for the Public

## 6. A Changing Climate

### 6.1 Climate Change Adaptation

6.1.1 With reference to GOV.UK climate change projections suggest we can expect:

- higher average temperatures – particularly in summer and winter;
- more heat waves and hot days;
- rising sea levels;
- changes in rainfall patterns and intensity; and
- more storms.

6.1.2 The main risk from drier weather in relation to activities at the Ladds Recycling Yard is considered to relate to increased dust generation. Processing (crushing) of waste is not to take place during periods of extreme drought, with stockpile sizes to be managed as appropriate (e.g. reduce surface area, coverings etc).

## 7. Complaints Procedure

- 7.1.1 If a complaint is received by facility personnel, it is immediately reported to the Technically Competent Manager (or appointed deputy if they are unavailable) and logged.
- 7.1.2 Where necessary, the Technically Competent Manager, or appointed deputy, will instruct the cessation of any operations causing complaints until such time as the situation can be resolved. If nuisance is identified beyond the site boundary the Environment Agency will be informed, as soon as is practicable, and in accordance with the reporting requirements set out within the Permit.
- 7.1.3 Any significant incidents or complaints are investigated in order to determine the cause and review the relevant management procedures; the nature of the incident and remedial action are recorded.
- 7.1.4 Where no obvious cause for the complaint can be identified, monitoring may be undertaken in order to determine if a justifiable complaint exists.
- 7.1.5 A formal written record is maintained of all complaints, investigations and associated remedial actions. The complaint form in the Dust Management Plan may be used for this purpose.

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## 8. Staff Training & Competence

### 8.1 Site Staff

- 8.1.1 All Site staff receive induction training including an introduction to the EMS and relevant environmental issues.
- 8.1.2 Sufficient management and supervision is provided at the Site throughout the permitted operating hours to ensure that operations comply with the Environmental Permit and provisions of this EMS. All persons employed on Site shall be instructed in those requirements appropriate to their function and the responsibilities the EMS imposes on them.
- 8.1.3 All Site staff (as opposed to office-staff) complete CITB site safety operation courses. An external firm is used to provide instruction and evaluate Staff competence to operate plant.
- 8.1.4 Where a legislative requirement exists relating to individual training and certification, every endeavour is made to ensure that the identified training and individual certification is gained in accordance with that legislation.
- 8.1.5 A record of staff training and competence is kept including such details as:
- Level of competence attained;
  - Date and duration of the training or event;
  - Training and/or activities undertaken;
  - Qualifications and/or certificates attained; and
  - Ongoing and/or future training and/or re-certification requirements.
- 8.1.6 Staff are issued with appropriate personal protective equipment to undertake their duties including hard hats, high visibility clothing, overalls, gloves (rubber coated and leather). Other equipment is available for specialist work as required.

### 8.2 Technically Competent Person

- 8.2.1 The person in charge of Site supervision (i.e. the Technically Competent Manager, Emma Hart) meets the standards set out in the CIWM/WAMITAB approved competence scheme as applicable to the operation of a non-hazardous waste transfer facility.
- 8.2.2 Emma is based primarily in Harts Haulage's office immediately adjacent to the Permitted Site.

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## 9. Record Keeping

### 9.1 Records, Reports and Registers

9.1.1 Site Management is responsible for ensure records are maintained as required. This includes:

- The registration numbers of the vehicles entering the Site carrying waste for disposal;
- The metric tonnage or volume of waste imported;
- The source of the waste (i.e. the location it was sent from);
- The date the waste arrives at the Site;
- The registration number and tonnage of the vehicle and the destination, name, address and certificate number of the carrier removing waste from the Site; and
- Any quarantined materials that are part of the deliver and what happened to them; and
- Transfer notes for materials entering and leaving the Site.

9.1.2 The volume of waste entering the Site is recorded, based on the carrying capacity of each skip / vehicle. The tonnage is calculated on the basis of appropriate density figures.

9.1.3 Summaries of the waste input and taken away from the Site are maintained on a monthly basis.

9.1.4 Copies of all Waste Transfer Notes are maintained for a minimum of two years.

9.1.5 A Site diary is maintained on-Site to record important dates and events. These include dates of commencement and completion of all engineering construction works, plant breakdown, emergencies, unauthorised waste received, and actions taken to deal with it, sampling exercise, severe weather, complaints, environmental problems and remedial actions.

9.1.6 The Technically Competent Manager is responsible for maintaining records of the following:

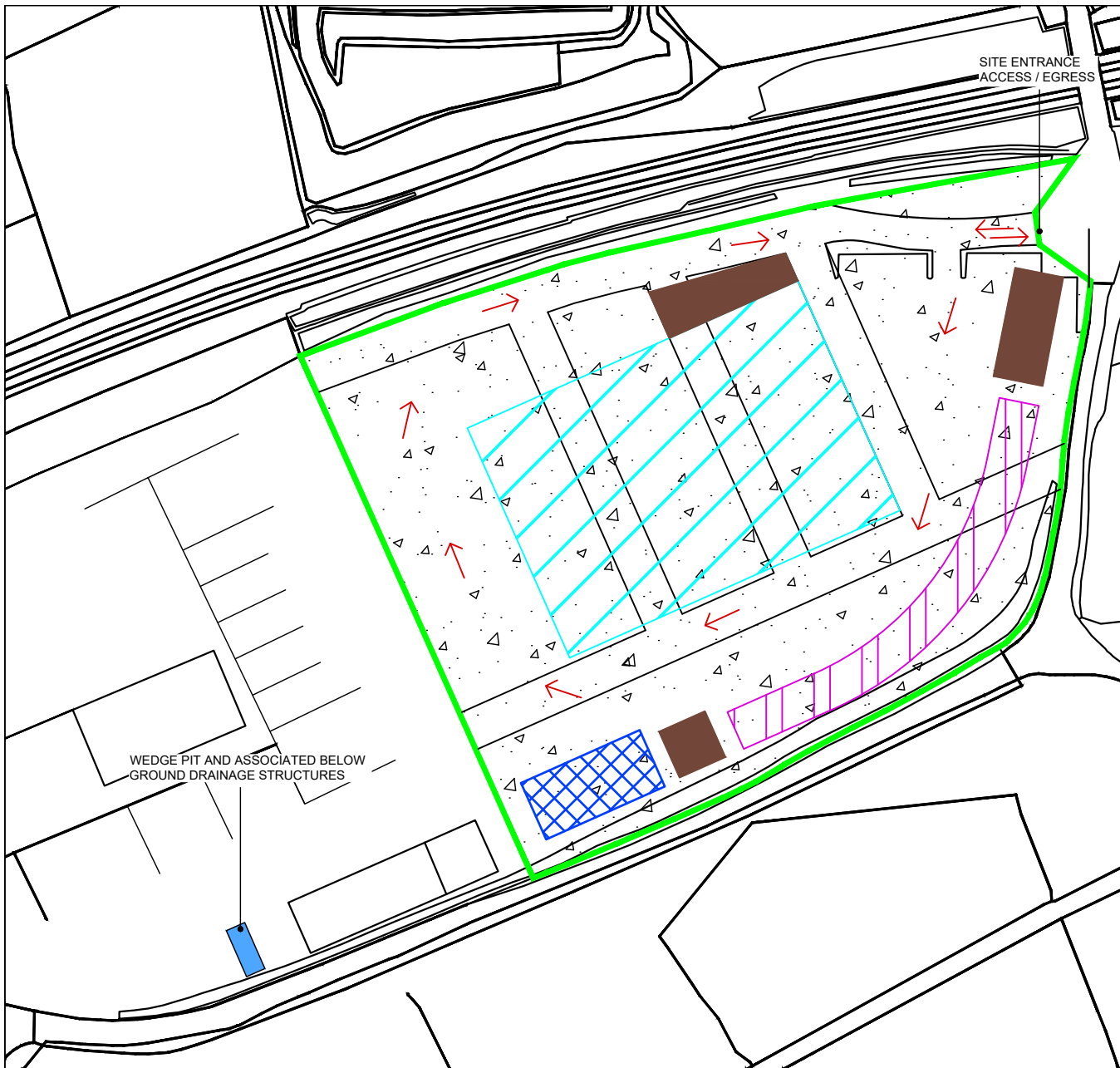
- Permits issued to the Site;
- Other legal requirements;
- Risk assessments;
- All management system plans;
- Any plans required by the application or permit;
- All operating procedures;
- Staff competence and training (e.g. qualifications, courses attended);
- Emissions and any other monitoring undertaken (e.g. water samples);
- Compliance checks, findings of investigation and actions taken;
- Complaints made, findings of investigation and actions taken;
- Audits of management system, findings (reports) and actions taken; and
- Management reviews and changes made to the management system.

9.1.7 A copy of the Site's Environmental Permit is placed on the Site noticeboard for inspection by staff and visitors.

## 9.2 Audits & Review

- 9.2.1 Compliance with the requirements of the Environmental Permit and this EMS are audited at regular intervals, not greater than three-monthly. Any issues highlighted are addressed via action plans and implementation on-Site.
- 9.2.2 As stated in Section 1 an EMS is a living document and will be reviewed periodically (maximum frequency annually or in the event of changes to the Site, operations and equipment) and kept up to date. With reference to the Site, the first major review should take place following construction of the Site and prior to commencement of operations.
- 9.2.3 The Technically Competent Manager is responsible for reviewing the EMS, checking conformance with the Environmental Permit and recording the checks conducted, changes implemented, and actions taken.

# Appendix A Drawings









**NOTES: GENERAL**

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS SHOWN ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT SCHEME DRAWINGS AND SPECIFICATIONS.

**SITE INFRASTRUCTURE NOTES**

1. SITE SURFACED WITH CONCRETE HARDSTANDING
2. MATERIAL STOCKPILES LOCATED ON CONCRETE SLAB
3. PROCESSING AND TREATMENT UNDERTAKEN ON CONCRETE SLAB
4. NO SERVICES (ELECTRIC, WATER, DRAINS OR GAS) WITHIN PERMITTED AREA
5. WELFARE FACILITIES PROVIDED WITHIN ADJACENT OFFICES OUTSIDE OF PERMITTED AREA
6. NO BUILDINGS WITHIN PERMITTED AREA

**KEY - SITE PLAN**

-  CONCRETE HARDSTANDING
-  WASH PLANT
-  PROCESSED MATERIAL BAYS
-  SCREENED MATERIAL STOCKPILES
-  WASTE STOCKPILES
-  MAIN TRAFFIC ROUTE

B	UPDATED SITE PLAN	GB	AL	13.06.25
A	UPDATED SITE PLAN	GB	AL	01.11.24
Rev	Description	Drn	Chk	Date

**REVISIONS**



The Dairy Barn, Westpoint Crt, Sidmouth Rd, Exeter EX5 1DJ  
T: 01392 363364 www.horizon-ce.co.uk



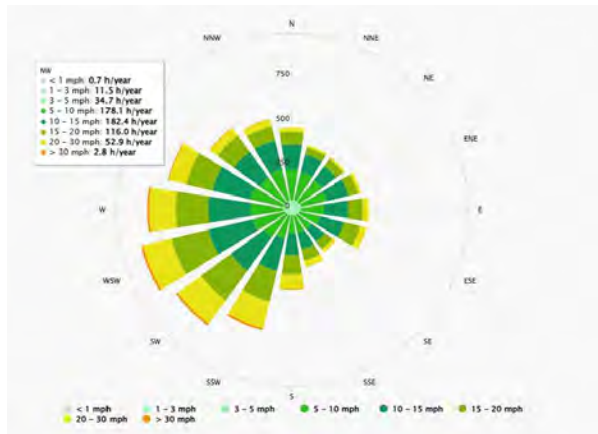
JOB TITLE  
**HART'S HAULAGE**

DRAWING TITLE  
**SITE PLAN  
REDRUTH**

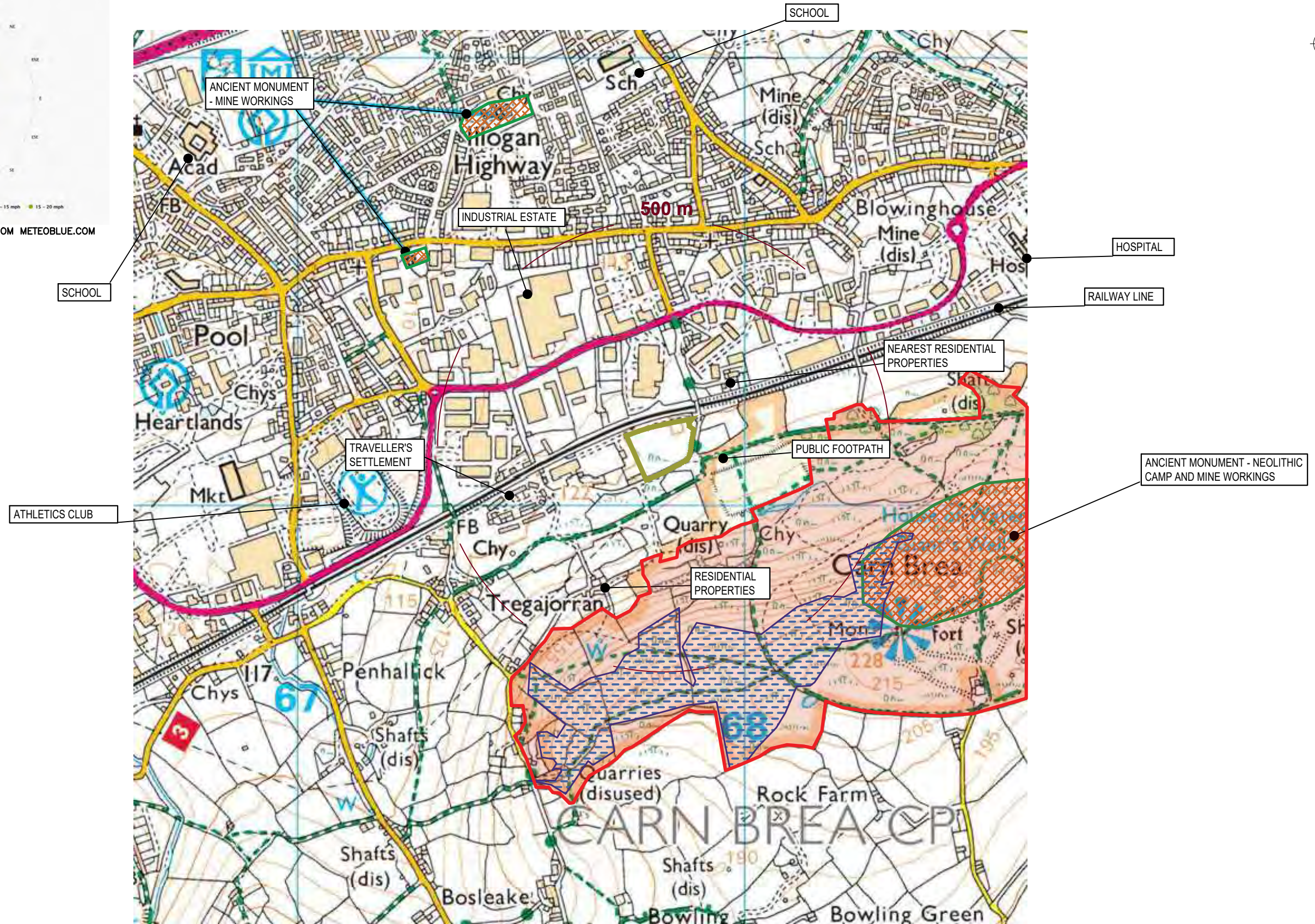
DATE **APRIL '24** DRAWN **GB** CHECKED **AL**

DRAWING No. **1198.110** REV. **B** SCALE **1:1000** @ **A4**

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WINDROSE DATA FOR REDRUTH. SOURCED FROM METEOBLUE.COM



- KEY:
- PERMIT BOUNDARY
  - ANCIANT MONUMENT
  - PRIORITY HABITAT - LOWLAND HEATHLAND
  - LOCAL WILDLIFE SITE



Tresco House, Westpoint Crt, Sidmouth Rd, Exeter EX5 1DJ  
T: 01392 363364 www.horizon-ce.co.uk



JOB TITLE  
**LADDS RECYCLING YARD  
REDRUTH**

DRAWING TITLE  
**SENSITIVE RECEPTORS PLAN**

A	Updated to include local wildlife site	JH	AL	02.03.26
Rev	Description	Drn	Chk	Date
REVISIONS				
Preliminary	Approval	Tender	Const.	
DRAWING STATUS				
DATE	DRAWN	CHECKED		
NOV '24	JH	.		
DRAWING No.	REV	SCALE		
1198.111	.	NTS @ A3		
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# Appendix B

## Waste Codes

**Document Ref:**

Ladds Recycling Yard Waste Codes **Date:**

05 March 2026

## 1 Waste Codes

Following variation of the existing permit to a bespoke permit, only the waste codes listed in the table below are acceptable for import to Ladds Recycling Yard:

<b>Waste Code</b>	<b>Description</b>
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
10 01 01	bottom ash and slag only
10 01 02	pulverised fuel ash only
10 01 15	bottom ash and slag only from co-incineration other than those mentioned in 10 01 14
10 11 12	clean glass other than those mentioned in 10 11 11
10 12 08	waste ceramics, bricks, tiles and construction products(after thermal processing)
10 13 14	waste concrete only
15 01 07	clean glass only
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02 02	clean glass only
17 03 02	road base and road planings (other than those containing coal tar) only
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 08	track ballast other than those mentioned in 17 05 07
17 09 04	Mixtures of soil, bricks, stones and concrete
19 12 05	clean glass only
19 12 09	minerals (for example sand, stones)
20 01 02	clean glass only
20 02 02	soil and stones

# Appendix C

## Waste Acceptance Policy

# HARTS HAULAGE Ltd

Druids Road, Wilson Way,  
Redruth, Cornwall, TR15 3EQ  
Tel: 01209 211018 Email: hartshaul@aol.com



## **Policy: Non-Conforming Waste Acceptance & Quarantine Management**

### **1. Purpose**

To establish a controlled process for identifying, isolating, assessing, and managing non-conforming waste delivered to the facility in order to:

- Protect health, safety, and the environment
  - Ensure regulatory compliance
  - Prevent cross-contamination
  - Maintain operational integrity
- 

### **2. Scope**

This policy applies to:

- All incoming waste loads delivered to the facility
  - All employees, contractors, and transporters
  - All waste streams accepted under site permits
- 

### **3. Definitions**

### **Non-Conforming Waste**

Waste that:

- Does not match the approved waste description or documentation
- Is outside permitted waste categories
- Is contaminated, hazardous, or prohibited
- Poses safety, environmental, or regulatory risk

### **Quarantine Area**

A designated, secure, and clearly marked area used to temporarily isolate non-conforming waste pending assessment and disposition.

---

## **4. Responsibilities**

### **Site Manager**

- Overall compliance and regulatory reporting
- Authorizes final disposition of non-conforming waste

### **Weighbridge/Reception Staff**

- Verify documentation
- Conduct visual inspection
- Flag suspected non-conformance

### **Operations Supervisor**

- Direct transfer to quarantine area
- Initiate incident report

### **Environmental/Compliance Officer**

- Assess regulatory implications
  - Notify authorities if required
-

## **5. Procedure**

### **5.1 Detection**

Non-conforming waste may be identified through:

- Weighbridge documentation check
- Visual inspection
- Sampling/testing
- Operator observation during unloading

If suspected:

1. Stop unloading (if safe to do so).
  2. Inform Supervisor immediately.
  3. Complete a Non-Conformance Report (NCR).
- 

### **5.2 Quarantine Area Requirements**

The quarantine area must:

- Be physically segregated from general waste areas
  - Be clearly labeled "QUARANTINE – NON-CONFORMING WASTE"
  - Have impermeable surface with spill containment
  - Be covered (if required for environmental protection)
  - Have restricted access
  - Include fire protection controls if applicable
  - Prevent runoff and cross-contamination
- 

## **6. Quarantine Handling Process**

1. **Transfer**

- Waste moved to quarantine using appropriate equipment
  - PPE requirements enforced
2. **Identification & Labeling**
- Clearly tag with:
    - Date received
    - Waste producer
    - Transporter
    - Description of issue
    - Unique NCR reference number
3. **Assessment**
- Visual inspection
  - Sampling (if required)
  - Classification determination
4. **Decision Path**
- Accept with corrective action
  - Reclassify and process appropriately
  - Reject and return to producer
  - Arrange removal by licensed contractor
  - Notify regulator (if required)
5. **Documentation**
- All actions recorded in NCR log
  - Maintain records for regulatory retention period
- 

## 7. Time Limits

- Waste must not remain in quarantine longer than **X days** (as per permit/regulation).
  - Escalation required if resolution exceeds set timeframe.
- 

## 8. Health, Safety & Environmental Controls

- Appropriate PPE required

- Spill kits available
  - Fire risk assessment completed
  - Hazardous waste stored in compliant containers
  - Emergency procedures displayed
- 

## **9. Communication**

- Inform waste producer of non-conformance within 24 hours
  - Provide written notification with evidence (photos, description)
  - Maintain communication log
- 

## **10. Training**

All relevant personnel must receive training on:

- Waste acceptance criteria
- Identification of non-conforming waste
- Quarantine procedures
- Incident reporting

Training records must be maintained.

---

## **11. Audit & Review**

- Quarterly review of NCR log
- Trend analysis to identify recurring issues
- Annual policy review

---

## **Appendix A – Example Non-Conformance Workflow**

1. Load arrives
  2. Inspection identifies discrepancy
  3. Load isolated
  4. NCR issued
  5. Assessment completed
  6. Disposition decision
  7. Documentation closed
-

# Appendix D

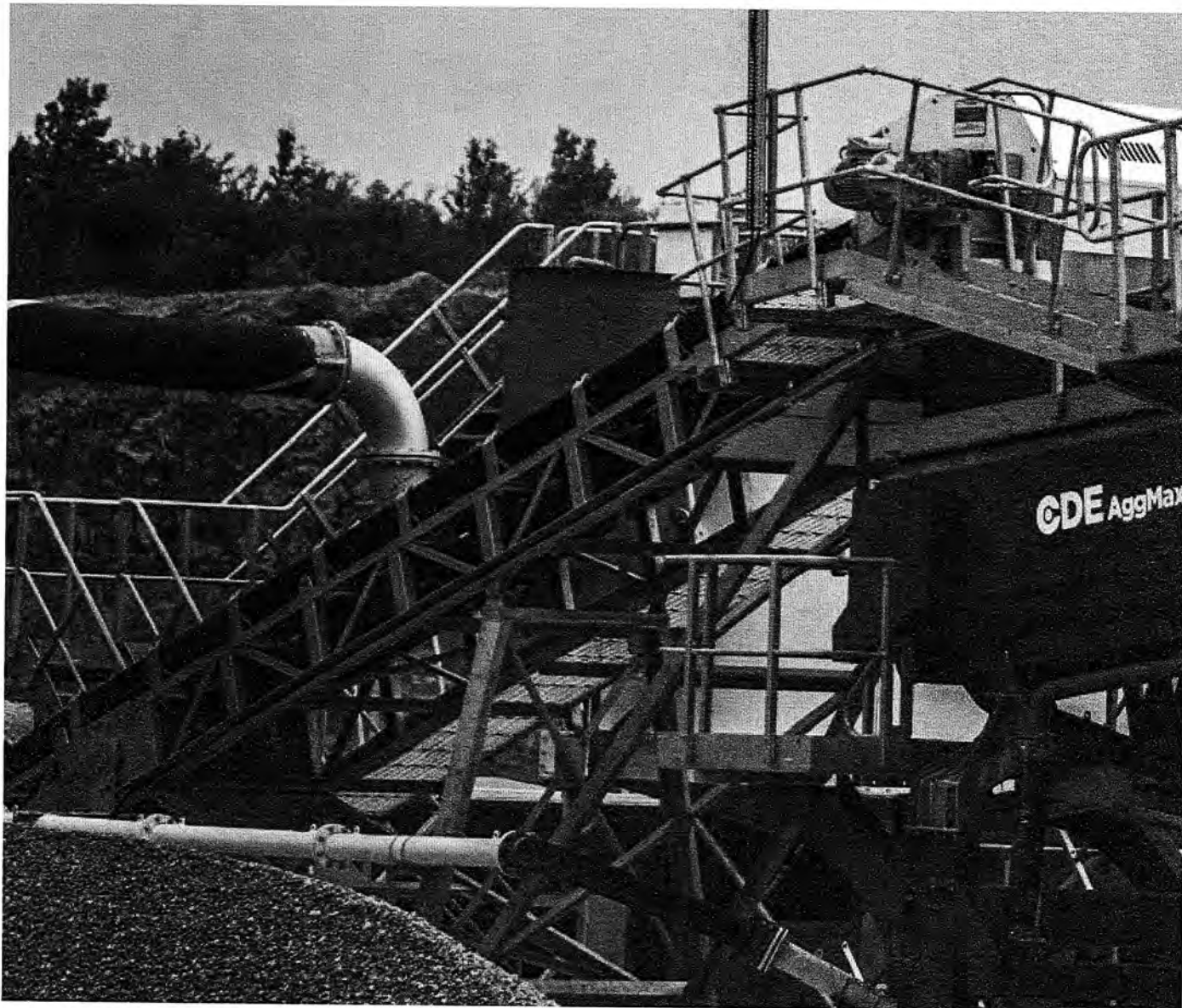
## Pre-Start Procedures

# HARTS HAULAGE Ltd

Druids Road, Wilson Way,  
Redruth, Cornwall, TR15 3EQ  
Tel: 01209 211018 Email: hartshaul@aol.com



## 1 Pre-Start Daily Inspection (Whole Plant)







### ◆ General Condition

- No structural damage or corrosion
  - Access platforms secure
  - Handrails intact
  - Guards fitted and secure
  - No excessive material build-up
-

## ◆ Feed Hopper & Primary Feeder

- Grizzly bars clear
  - No oversized material
  - Feeder operating freely
  - Hopper liners intact
- 

## ◆ Conveyors

- Belts aligned
  - No fraying or tears
  - Rollers free-running
  - Scrapers functioning
  - Pull cords operational
- 

## ◆ Pumps & Pipework

- No leaks
  - Impellers free from blockage
  - Valves operational
  - Slurry lines secure
- 

## ◆ Screens

- Screen media intact
- Tension correct

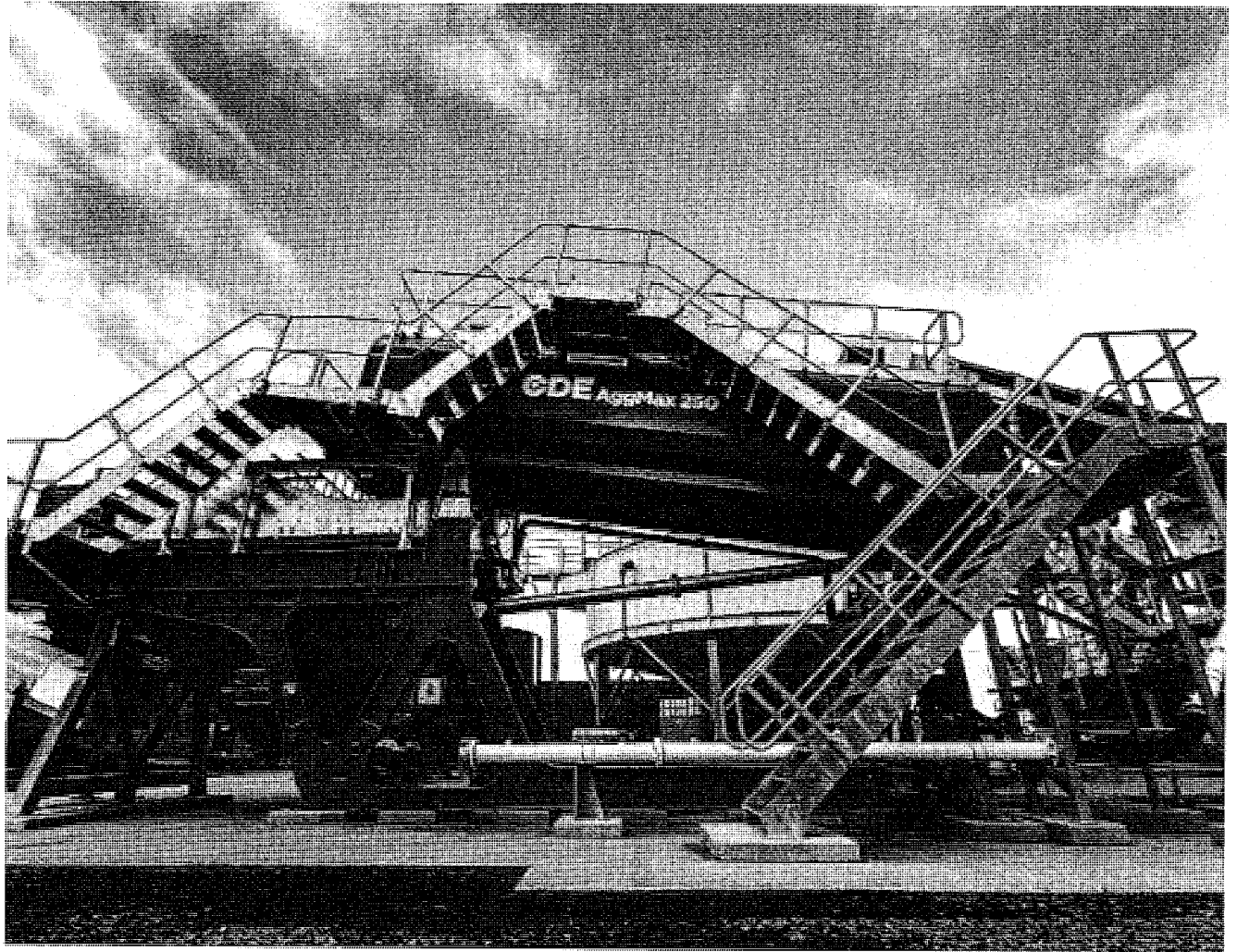
- Spray bars clear
  - No blinding
- 

### **Hydrocyclones**

- No casing cracks
  - Apex wear acceptable
  - Vortex finder secure
  - Operating pressure within spec
- 

## **2 AggMax 80 Specific Checklist**





### ◆ **Logwasher Drum & Shafts**

- No abnormal vibration
- Shafts turning freely
- No unusual noise
- Bearings running smoothly

### ◆ **Paddles & Wear Plates**

- Paddles not excessively worn
- No missing bolts
- Wear liners secure
- Clearance between paddles acceptable

## ◆ Drive System

- Gearboxes free from leaks
- Oil levels correct
- Couplings secure
- Motor mounts tight

## ◆ Discharge Area

- No blockages
- Spray bars clear
- Correct material flow
- No excessive carry-back

## ◆ Safety

- All guards secure
  - E-stop functional
  - No access while in operation
- 

## **3** Start-Up Procedure (Including AggMax 80)

- Check sump levels
  - Start water supply
  - Prime pumps
  - Start plant in correct sequence
  - Start AggMax after upstream feed confirmed
  - Monitor initial load and torque
  - Confirm even material flow
-

## **4 Operational Monitoring (During Shift)**

### **◆ AggMax Performance**

- No overloading
- Consistent feed rate
- No excessive torque
- No abnormal vibration
- Clean aggregate discharge

### **◆ Water Management**

- Adequate spray pressure
- No overflow from sumps
- Slurry returning correctly
- Settlement tanks functioning

### **◆ Product Quality**

- Clay removed effectively
  - Aggregates free from contamination
  - Correct grading achieved
  - Moisture within spec
- 

## **5 End of Shift Checks**

- Stop plant in correct sequence
- Stop AggMax before full plant shutdown
- Flush if required
- Remove build-up around shafts
- Inspect paddles for wear
- Record operating hours
- Log defects

---

## **6 Weekly Maintenance (AggMax 80 Focus)**

- Inspect paddle wear
- Check shaft alignment
- Check bearing temperatures
- Inspect gearbox oil condition
- Grease bearings as per OEM spec
- Check structural mounting bolts

---

## **7 Critical Shutdown Conditions**

Immediately stop plant if:

- Excessive vibration in AggMax
- Bearing overheating
- Gearbox oil leak
- Shaft misalignment
- Foreign metal entering logwasher
- Screen failure
- Major water leak

Report immediately to Site Manager.

---

## **8 Documentation & Record Keeping**

Maintain:

- Daily inspection sheets
- AggMax maintenance log
- Gearbox oil change records
- Production logs
- Water usage records
- Defect reports

Retention per permit and company policy.

# Appendix E MSDS

## SAFETY DATA SHEET

ClearFoam 300

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product Identifier:

- Commercial product name: **CLEARFOAM 300**

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

Industrial

- Use of substance/preparation: Foam control agent.

#### 1.3 Details of the supplier of the safety data sheet:

**Supplier:** GPC CLEAR SOLUTIONS LIMITED  
Unit 57  
Riverside Estate  
Sir Thomas Longley Road  
Medway City Estate  
Rochester  
Kent  
ME2 4DP  
United Kingdom

**Telephone Number:** +44 (0) 1634 326920

**Mobile:** +44 (0) 7787564967

**Email:** [sales@gpcclearsolutions.co.uk](mailto:sales@gpcclearsolutions.co.uk)

#### 1.4 Emergency Telephone Number (Out of office hours only):

**GPC Clear Solution Ltd (Office hours only):** +44 (0) 7787 564 967

**National Poison Information Service:** NHS Direct: 0845 4647 or 111 (24/24, 7/7)  
Scotland: NHS 24-08454 24 24 24 (24/24, 7/7)

## SAFETY DATA SHEET

### ClearFoam 300

#### 2. HAZARDS IDENTIFICATION

##### 2.1 Classification of substance or mixture

- Classification according to Regulation EC 1272/2008 (CLP):

This product is not classified as hazardous under Directive EC 1272/2008 (CLP).

##### 2.2 Labelling elements:

EUH208

Contains 5-Chloro-2-Methyl-2H-Isothiazol-3-one/2-Methyl-2H-Isothiazol-3-one (CMIT/MIT) may produce an allergic reaction.

##### 2.3 Other hazards:

Does not contain known endocrine disrupters. Does not contain intentionally produced nanoforms.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

##### 3.1 Substances:

Not applicable.

##### 3.2 Mixtures:

Fatty alcohol-based emulsion.

Component	CAS No.	H. Statement	Concentration Range
1,2-benzisothiazol-3(2H)-one	2634-33-5	Acute Tox. 4, H302 Skin Irrit. 2 H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) CLP classification, notes: Skin Sens. 1; H317: C <sub>≥</sub> 0.05%	<0.04%
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one	55965-84-9	Acute Tox. 2, H310 Acute Tox. 3, H301 Acute Tox. 2, H330 Skin Corr 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 EUH071 Aquatic Acute 1, H400 (M=100) Aquatic chronic 1, H410 (M=100) CLP classification notes: Eye Dam, 1: C <sub>≥</sub> 0.6% Eye Irrit. 2; H319: 0.06% ≤C <0.6%	

## SAFETY DATA SHEET

### ClearFoam 300

		Skin Irrit. 2; H315: 0.06% ≤C<0.6% Skin Sens. 1A: C≥0.0015%	
--	--	--	--

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 4. FIRST AID MEASURES

##### 4.1 Description of first aid measures

- **General information:** In case of accident or if you feel unwell seek medical advice (show label or SDS where possible).
- **After inhalation:** Provide fresh air. Seek medical attention in case of complaints.
- **After contact with skin:** Remove contaminated clothing. Wash thoroughly with soap and water.
- **After contact with eyes:** Rinse thoroughly with water. If irritation persists, seek medical advice.
- **After swallowing:** Do not induce vomiting. Drink milk. If a significant quantity has been ingested, seek medical attention.

##### 4.2 Most important symptoms and effects, both acute and delayed:

Any relevant information can be found in parts of this section.

##### 4.3 Indication of any immediate medical attention and special treatment:

No data available.

#### 5. FIRE-FIGHTING MEASURES

##### 5.1 Extinguishing media

- **Suitable extinguishing media:** Carbon dioxide. Foam. Dry chemical powder. Water spray.

##### 5.2 Special hazards arising from substance or mixture:

In a fire this product will release oxides of carbon.

## SAFETY DATA SHEET

### ClearFoam 300

- 5.3 Advice for firefighters:** Cool tanks and containers exposed to fire with water. Cover spills, which are not burning, with foam or sand.
- **Special protective equipment for firefighters:** Use respiration and eye protection in case of smoke.

## 6. ACCIDENTAL REALEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures:** If material is released indicate risk of slipping. Do not walk-through spilled material.
- 6.2 Environmental precautions:** Prevent liquid entering a sewer or water course.
- 6.3 Methods and material for containment and clean up:** Absorb spilled liquid with sand or earth. Transfer to suitable clearly marked containers for disposal in accordance with national and local regulations.
- 6.4 Reference to other sections:** Relevant information in other sections have to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13).

## 7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling:** Handle in accordance with good industrial hygiene practices. Avoid contact with eyes and skin. Wash hands thoroughly after contact. Observe general rules for fire prevention.
- 7.2 Conditions for safe storage, including any incompatibilities:** Store between 5°C and 30°C. Extremes of temperature may adversely affect the viscosity and stability of this product.
- 7.3 Specific end use(s):** See the technical data sheet on this product for further information.

## SAFETY DATA SHEET

### ClearFoam 300

#### 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

##### 8.1 Control parameters

- **Maximum airborne concentrations at the workplace:** Not applicable.

##### 8.2 Exposure controls

- **General protective and hygiene measures:** Observe standard industrial hygiene practices for handling chemical substances. Keep away from food stuffs.
- **Respiratory protection:** Respiratory protection is unnecessary providing the concentration of mists and fumes are adequately controlled.
- **Protection of hands:** Wear Nitrile gloves.
- **Eye protection:** Wear protective eye goggles or visor.
- **Body protection:** Wear light weight protective clothing.
- **Environmental exposure controls:** See SECTION 7: Handling and Storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

##### 9.1 General information

- **Appearance:** White emulsion
- **Odour:** Mild, characteristic
- **S.G.:** 0.975 @ 20°C
- **Boiling point:** Not applicable.
- **Flash point:** Not applicable.

## SAFETY DATA SHEET

### ClearFoam 300

- **Autoflammability:** Not applicable.
- **Explosive properties:** Not applicable.
- **Oxidising properties:** Not applicable.
- **Solubility in water:** Readily dispersible.
- **Viscosity:** 300 cPs @ 20°C
- **Partition coefficient, n-octanol water:** Not determined.

#### 10. STABILITY AND REACTIVITY

- 10.1 Reactivity:** If stored and handled in accordance with standard industrial practices no hazardous reactions are known.
- 10.2 Chemical stability:** Stable under the conditions of normal industrial practices.
- 10.3 Possibility of hazardous reaction:** None known.
- 10.4 Conditions to avoid:** None known.
- 10.5 Incompatible materials:** Avoid strong oxidising agents.
- 10.6 Hazardous decomposition products:** Oxides of carbon.

#### 11. TOXICOLOGICAL INFORMATION

##### 11.1 Information on toxicological effects

- **Acute toxicity**
  - a) **Acute oral toxicity:** Low toxicity if swallowed. Small amounts swallowed incidentally as a result on normal handling operations are not likely to cause injury: however, swallowing larger amounts may cause injury.

## SAFETY DATA SHEET

### ClearFoam 300

<b>b) Acute dermal toxicity:</b>	Prolonged skin contact is unlikely to result in absorption of harmful amounts.
- <b>Skin corrosion/irritation:</b>	Unlikely to cause harm to the skin on brief or occasion contact.
- <b>Serious eye damage/eye irritation:</b>	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.
- <b>Respiratory or skin sensitisation:</b>	No data to support respiratory or skin sensitisation.
- <b>Germ cell mutagenicity:</b>	No relevant data found.
- <b>Carcinogenicity:</b>	No relevant data found.
- <b>Reproductive toxicity:</b>	No relevant data found.
- <b>STOT – single exposure:</b>	No relevant data found.
- <b>STOT – Repeated exposure:</b>	No relevant data found.
- <b>Aspiration hazard:</b>	At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

- <b>Fish toxicity:</b>	LC50/96hr/>100 mg/L/Rainbow Trout (OECD 203)
- <b>Respiration inhibition:</b>	EC50/>1000 mg/L (OECD 209)

**12.2 Persistence and biodegradability:** This product will biodegrade to >97% (OECD 302B)

**12.3 Bioaccumulative potential:** This product is not expected to bioaccumulate.

**12.4 Mobility in soil:** Product disperses in water to form an emulsion.

**12.5 Results of PBT and vPvB assessment:** No data available.

**12.6 Other adverse effects:** Does not contain known endocrine disrupters. Not expected to cause endocrine disruption. Does not contain intentionally produced nanoforms.

## SAFETY DATA SHEET

### ClearFoam 300

#### 13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods:** Dispose of via an authorised waste disposal contractor in accordance with local regulations.  
Incineration may be carried out under controlled conditions providing the local regulations for emissions are met.

#### 14. TRANSPORT INFORMATION

- 14.1 UN number:**
- **RID/ADR class:** Not regulated for transport.
  - **IATA class:** Not regulated for transport.
  - **IMDG class:** Not regulated for transport.
- 14.2 UN proper shipping name:** Not regulated for transport.
- 14.3 Transport hazard class(es):** Not regulated for transport.
- 14.4 Packing group:** Not regulated for transport.
- 14.5 Environmental hazards:** Not hazardous to the environment.
- 14.6 Special precautions for user:** Relevant information in other sections have to be considered.
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code:** Bulk transport in tankers is not intended.

## SAFETY DATA SHEET

ClearFoam 300

### 15. REGULATORY INFORMATION

Water Classification WGK = 1

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

National and local regulations must be observed.  
For information on labelling please refer to section 2 of this document.

##### Relevant regulations:

EC 1272/2008 (CLP) Regulation  
SI 2002/2677: COSHH Regulations 2002  
SI 1999/3242: Management of Health & Safety at Work Regulations 1999  
Health & Safety at Work Act 1974  
SI 1993/1643: Environmental Protection Act 1993 & Subsidiary Regulations  
Other national and local measures relating to the workplace, pollution control, environmental protection and waste control.

#### 15.2 Chemical safety assessment

A chemical safety assessment according to (EC) regulation 1272/2008 (REACH) has not been carried out for this product.

#### 15.3 Other international regulations

Details of international registration status:

Listed on or in accordance with the following inventories:

EINECS – Europe  
ECL – Korea  
ENCS – Japan  
AICS – Australia  
IECSC – China  
DSL – Canada  
PICCS – Philippines  
TSCA - USA

## SAFETY DATA SHEET

ClearFoam 300

### 16. OTHER INFORMATION

#### 16.1 Lis of Relevant H-phrase (Section 2 and 3)

H301 Toxic if swallowed  
H302 Harmful if swallowed  
H310 Fatal in contact with skin  
H314 Causes severe skin burns and eye damage  
H315 Causes skin irritation  
H317 May cause an allergic skin reaction  
H318 Causes serious eye damage  
H330 Fatal if inhaled  
H400 Very toxic to aquatic life  
H410 Very toxic to aquatic life with long lasting effects.

#### 16.2 Material

The details in this document are based on the state of our knowledge at the time of revision. They do not constitute an assurance of the described product properties in terms of statutory warranty requirements.

The providing of this document to a recipient does not relieve the recipient of his or her responsibility toward compliance with all laws and stipulations applicable to the product. This applies in particular to the further sale or distribution of the product or substances or items containing the product, in other jurisdictions and with regards to the protection of third-party intellectual property rights. If the described product is processed or mixed with other substances or materials, the details stated in this document cannot be conferred to the resultant new product unless this has been expressly mentioned. If the product is repackaged, the recipient is obligated to additionally provide the required safety-related information.

## SAFETY DATA SHEET

ClearFlo C5898

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1 Product Identifier:**

**Trade Name:** ClearFlo C5898  
**Type of Product:** Mixture

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

- **Identified Uses:** Processing aid for industrial applications.
- **Uses advised against:** None

**1.3 Details of the supplier of the safety data sheet:**

**Supplier:** GPC CLEAR SOLUTIONS LIMITED  
Solutions House, Unit 57  
Riverside Estate  
Sir Thomas Longley Road  
Medway City Estate  
Rochester  
Kent  
ME2 4DP  
United Kingdom

**Telephone Number:** +44 (0) 1634 326920  
**Mobile:** +44 (0) 7787564967

**Email:** [sales@gpcclearsolutions.co.uk](mailto:sales@gpcclearsolutions.co.uk)

**1.4 Emergency Telephone Number (Out of office hours only):**

**GPC Clear Solution Ltd (Office hours only):** +44 (0) 7787 564 967

**National Poison Information Service:** NHS Direct: 0845 4647 or 111 (24/24, 7/7)  
Scotland: NHS 24-08454 24 24 24 (24/24, 7/7)

## SAFETY DATA SHEET

ClearFlo C5898

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture:

- **Classification according to Regulation (EC) No. 1272/2008:** Aquatic Chronic 3;H412

#### 2.2 Label Elements:

- **Labelling according to Regulation (EC) No 1272/2008:**
- **Hazard Pictograms:** None
- **Signal Word:** None
- **Hazard Statements:** H412 - Harmful to aquatic life with long lasting effects.
- **Precautionary Statements:** P273 – Avoid release to the environment.
- **Additional elements:** None.

#### 2.3 Other Hazards:

- **PBT and vPvB assessment:** May produce extremely slippery surfaces.  
Not PBT or vPvB according to the criteria of Annex XIII of REACH.

For explanation of abbreviations see Section 16.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances:** Not applicable, this product is a mixture.

**3.2 Mixtures:**

**Hazardous components**

***1,2-Ethanediamine, polymer with 2-(chloromethyl) oxirane and N-methylmethanamine***

- **Concentration/ -range:** 25 – 75%

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- **EC-No:** Polymer
- **REACH Registration Number:** No applicable (polymer)
- **Classification according Regulation (EC) No. 1272/2008:** Aquatic Chronic 3;H412

For explanation of abbreviations see section 16.

#### 4. FIRST AID MEASURES

##### 4.1 Description of first aid measures:

- **Inhalation:** Move to fresh air. No hazards which require special first aid measures.
- **Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.
- **Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine. Get prompt medical attention.
- **Ingestion:** Rinse mouth with water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

**4.2 Most important symptoms and effects, both acute and delayed:** None under normal use.

**4.3 Indication of any immediate medical attention and special treatment needed:** None under normal use.

**4.4 Other information:** None.

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### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media:

- **Suitable extinguishing media:** Water. Water spray. Foam. Carbon dioxide (CO<sub>2</sub>). Dry powder.  
Warning! Spills produce extremely slippery surfaces.
- **Unsuitable extinguishing media:** None known.

#### 5.2 Special hazards arising from the substance or mixture:

- **Hazardous decomposition products:** Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NO<sub>x</sub>), carbon oxides (CO<sub>x</sub>). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

#### 5.3 Advice for firefighters:

- **Protective measures:** Wear self-contained breathing apparatus and protective suit.
- **Other information:** Spills produce extremely slippery surfaces. Will not burn until water is evaporated.

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures:

- **Personal precautions:** Do not touch or walk through spilled material. Spills produce extremely slippery surfaces.
- **Protective equipment:** Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).
- **Emergency procedures:** Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

#### 6.2 Environmental precautions:

Do not contaminate water.

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#### 6.3 Methods and material for containment and cleaning up:

- **Small spills:** Do not flush with water. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.
- **Large spills:** Do not flush with water. Dam up. Soak up with inert absorbent material. Clean up promptly by scoop or vacuum.
- **Residues:** After cleaning, flush away traces with water.

#### 6.4 Reference to other sections:

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations.

## 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling:

Avoid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

#### 7.2 Conditions for safe storage, including any incompatibles:

Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material.

#### 7.3 Specific end use(s):

This information is not available.

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

#### 8.1 Control parameters:

- **National occupational exposure limits:** None known.

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- **Derived No and Minimum Effect Levels (DNELs/DMELs):** None known.
- **Predicted no-effect concentrations (PNEC):** None known.

#### 8.2 Exposure controls:

- **Appropriate engineering controls:** Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.
- **Individual protection measures such as personal protective equipment.**
  - a) **Eye protection:** Safety glasses with side-shields.
  - b) **Skin protection:**
    - i) **Hand protection:** PVC or other plastic material gloves.
    - ii) **Other:** Wear coverall and/or chemical apron and rubber footwear where physical contact can occur.
  - c) **Respiratory protection:** No personal respiratory protective equipment normally required.
  - d) **Additional advice:** Wash hands before breaks and immediately after handling the product. Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice.
- **Environmental exposure controls:** Do not allow uncontrolled discharge of product into the environment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties:

- **Appearance:** Liquid, Colourless to amber.
- **Odour:** Slight/Characteristic
- **Odour Threshold:** Not applicable.
- **pH:** 4 – 7 (See Technical Bulletin or Product Specifications for precise value).

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- **Melting point/ freezing point:** < 5°C
- **Initial boiling point and boiling range:** > 100°C
- **Flash point:** Does not flash.
- **Evaporation rate:** No data available.
- **Flammability (solid, gas):** Not applicable.
- **Upper/lower flammability or explosive limits:** Not expected to create explosive atmospheres.
- **Vapour pressure:** 2.3 kPa @ 20°C
- **Vapour density:** 0.804 g/litre @ 20°C
- **Relative density:** 1.0 – 1.2 (See Technical Bulletin or Product Specifications for precise value).
- **Solubility(ies):** Completely miscible.
- **Partition coefficient:** < 0
- **Autoignition temperature:** Does no self-ignite (based on the chemical structure).
- **Decomposition temperature:** > 150°C
- **Viscosity:** See Technical Bulletin.
- **Kinematic viscosity:** No data available
- **Explosive properties:** Not expected to be explosive based on the chemical structure.
- **Oxidizing properties:** Not expected to be oxidising based on the chemical structure.
- **Particle characteristics:** Not applicable

**9.2 Other information:** None.

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### 10. STABILITY AND REACTIVITY

10.1	<b>Reactivity:</b>	Stable under recommended storage conditions.
10.2	<b>Chemical stability:</b>	Stable under recommended storage conditions.
10.3	<b>Possibility of hazardous reactions:</b>	None known.
10.4	<b>Conditions to avoid:</b>	Protect from frost, heat and sunlight.
10.5	<b>Incompatible materials:</b>	None known.
10.6	<b>Hazardous decomposition products:</b>	Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid) may be produced in the vent of combustion in an oxygen deficient atmosphere.

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

**Information on the product as supplied:**

-	<b>Acute oral toxicity:</b>	LD50/oral/rat > 5000 mg/kg
-	<b>Acute dermal toxicity:</b>	LD50/dermal/rat > 5000 mg/kg
-	<b>Acute inhalation toxicity:</b>	Testing by the inhalation route is inappropriate exposure of humans via inhalation is unlikely; the substance has no vapour pressure and there is practically no exposure to inhalable aerosols.
-	<b>Skin corrosion/irritation:</b>	Non-irritating to skin.
-	<b>Serious eye damage/eye irritation:</b>	Slightly irritating.
-	<b>Respiratory/skin sensitisation:</b>	Not sensitizing to skin. No respiratory sensitization has been observed in the workplace.

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- **Mutagenicity:** By analogy with similar products, this product is not expected to be mutagenic.
- **Carcinogenicity:** By analogy with similar substances, this product is not expected to be carcinogenic.
- **Reproductive toxicity:** By analogy with similar substances, this substance is not expected to be toxic for reproduction.
- **STOT – Single exposure:** No known effects.
- **STOT – Repeated exposure:** No known effect.
- **Aspiration hazard:** No hazards resulting from the material as supplied.

#### Relevant information on the hazardous components:

##### *1,2-Ethanediamine, polymer with 2-(chloromethyl) oxirane and N-methylmethanamine*

- **Acute oral toxicity:** LD50/oral/rat > 2000 mg/kg
- **Acute dermal toxicity:** LD50/dermal/rat > 2000 mg/kg
- **Acute inhalation toxicity:** The product is not expected to be toxic by inhalation
- **Skin corrosion/irritation:** Non-irritating to skin.
- **Serious eye damage/eye irritation:** Not irritating.
- **Respiratory/skin sensitisation:** The product is not expected to be sensitizing.
- **Mutagenicity:** By analogy with similar products, this product is not expected to be mutagenic.
- **Carcinogenicity:** By analogy with similar substances, this product is not expected to be carcinogenic.
- **Reproductive toxicity:** By analogy with similar substances, this substance is not expected to be toxic for reproduction.
- **STOT – Single exposure:** No known effects.
- **STOT – Repeated exposure:** No known effect.
- **Aspiration hazard:** No known effects.

## SAFETY DATA SHEET

### ClearFlo C5898

#### 11.2 Information on hazards:

The substance is not identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 and is also not on the Candidate List of Substances of Very High Concern according to Article 59 of the EU REACH Regulation for having endocrine disrupting properties.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### Information on the product as supplied:

- **Acute toxicity to fish:** LC50/Danio rerio/96 hours = 10 – 100 mg/L
- **Acute toxicity to invertebrates:** EC50/Daphnia magna/48 hours = 10 – 100 mg/L
- **Acute toxicity to algae:** Algal inhibition tests are not appropriate. The flocculation characteristics of this product interfere directly in the test medium preventing homogenous distribution which invalidates the test.
- **Chronic toxicity to fish:** No data available.
- **Chronic toxicity to invertebrates:** No data available.
- **Toxicity to microorganisms:** No data available.
- **Effects on terrestrial organisms:** Exposure to soil is unlikely.
- **Sediment toxicity:** Exposure to sediment is unlikely.

#### Relevant information on the hazardous components:

##### *1,2-Ethanediamine, polymer with 2-(chloromethyl) oxirane and N-methylmethanamine*

- **Acute toxicity to fish:** LC50/Danio rerio/96 hours = 10 – 100 mg/L
- **Acute toxicity to invertebrates:** EC50/Daphnia magna/48 hours = 10 – 100 mg/L

## SAFETY DATA SHEET

### ClearFlo C5898

- **Acute toxicity to algae:** Algal inhibition tests are not appropriate. The flocculation characteristics of this product interfere directly in the test medium preventing homogenous distribution which invalidates the test.
- **Chronic toxicity to fish:** No data available.
- **Chronic toxicity to invertebrates:** No data available.
- **Toxicity to microorganisms:** No data available.
- **Effects on terrestrial organisms:** Exposure to soil is unlikely.
- **Sediment toxicity:** Exposure to sediment is unlikely.

#### 12.2 Persistence and degradability

##### Information on the product as supplied:

- **Degradation:** Not readily biodegradable.
- **Hydrolysis:** Does not hydrolyse.
- **Photolysis:** No data available.
- **Environmental fate/exposure:** The active ingredient in this product is a high molecular weight, water-soluble polymer. It absorbs rapidly and irreversibly to substrates, dissolved organic carbon and/or suspended particles forming an insoluble adduct which precipitates out of the water-column. This adduct is totally eliminated from the wastewater stream during water-treatment and/or sludge dewatering and will not be discharged to surface water.

##### Relevant information on the hazardous components:

##### *1,2-Ethanediamine, polymer with 2-(chloromethyl) oxirane and N-methylmethanamine*

- **Degradation:** Not readily biodegradable.
- **Hydrolysis:** Does not hydrolyse.
- **Photolysis:** No data available

#### 12.3 Bioaccumulative potential

## SAFETY DATA SHEET

### ClearFlo C5898

**Information on the product as supplied:**

- Partition co-efficient (Log Pow): < 0
- Bioconcentration factor (BCF): ~ 0

**Relevant information on the hazardous components:**

***1,2-Ethanediamine, polymer with 2-(chloromethyl) oxirane and N-methylmethanamine***

- Partition co-efficient (Log Pow): < 0
- Bioconcentration factor (BCF): ~ 0

**12.4 Mobility in soil**

**Information on the product as supplied:**

Exposure to soil is not to be expected.

- Koc: No data available.

**Relevant information on the hazardous components:**

***1,2-Ethanediamine, polymer with 2-(chloromethyl) oxirane and N-methylmethanamine***

- Koc: No data available.

**12.5 Results of PBT and vPvB assessment:**

- PBT assessment: Not PBT according to the criteria of Annex XIII of REACH
- vPvB assessment: No vPvB according to the criteria of Annex XIII of REACH.

**12.6 Other adverse effects:**

The substance is not identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 and is also not on the Candidate List of Substances of Very High Concern according to Article 59 of the EU REACH Regulation for having endocrine disrupting properties.

**12.7 Other adverse effects:**

None known.

## SAFETY DATA SHEET

ClearFlo C5898

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods:

- **Waste from residues/unused products:** Dispose in accordance with local and national regulations
- **Contaminated packaging:** Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations.
- **Recycling:** Store containers and offer for recycling of material when in accordance with the local regulations.

### 14. TRANSPORT INFORMATION

- 14.1 **Land transport (ADR/RID):** Not classified.
- 14.2 **Sea transport (IMDG):** Not classified.
- 14.3 **Air transport (IATA):** Not classified.

### 15. REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations specific for the substance or mixture:

All components of this product have been registered or pre-registered with the European Chemicals exempt from registration.

#### 15.2 Chemical Safety Assessment:

A chemical safety assessment for this product has been carried out by the person responsible for producing this Safety Data Sheet. All relevant information used to conduct this assessment are included in this Safety Data Sheet as well as any resulting Risk Reduction Measures.

## SAFETY DATA SHEET

ClearFlo C5898

### 16. OTHER INFORMATION

#### Further information:

This data sheet contains changes from the previous version in section(s):

SECTION 2. Hazards identification, SECTION 5. Fire-fighting measures, SECTION 9. Physical and chemical properties, SECTION 15. Regulatory information, SECTION 16. Other Information.

Key or legend to abbreviations and acronyms used in the safety data sheet.

#### *Acronyms*

PBT = persistent, bioaccumulative and toxic

STOT = Specific target organ toxicity

vPvB = very persistent and very bioaccumulative

#### *Abbreviations*

Aquatic Chronic 3 = Hazardous to the aquatic environment – Chronic Hazard, Category 3

#### *Hazard statements*

H412 – Harmful to aquatic life with long lasting effects

This SDS was prepared in accordance with the following:

Regulation (EC) No 1907/2006, as amended

Regulation (EC) No 1272/2008, as amended

Version 19.01.b

LDCC002

#### Contact:

Tele: +44 (0) 1634326920

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only a guidance for safe handling, use, process, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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 unless specified in the text.

## ANNEX(ES)

## **SAFETY DATA SHEET**

### **ClearFlo C5898**

This product is not hazardous as supplied and/or does not contain hazardous components:

- Which require REACH registration; or,
- Which demonstrate relevant effects which would require a chemical safety assessment; or,
- Which are present at concentrations above their cut-off value.

Therefore, according to Regulation (EC) No 1907/2006, Article 31, paragraph 7, an Exposure Scenario is not required as an annex to the Safety Data Sheet.

## SAFETY DATA SHEET

### CLEARFLO NP1868-1

#### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1 Product Identifier:

- Trade Name: **CLEARFLO NP1868-1**
- Type of product: Mixture

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

- Identified Uses: Processing aid for industrial applications
- Uses advised against: None

##### 1.3 Details of the supplier of the safety data sheet:

**Supplier:** GPC CLEAR SOLUTIONS LIMITED  
Unit 57  
Riverside Estate  
Sir Thomas Longley Road  
Medway City Estate  
Rochester  
Kent  
ME2 4DP  
United Kingdom

**Telephone Number:** +44 (0) 1634 326920

**Mobile:** +44 (0) 7787564967

**Email:** [sales@gpcclearsolutions.co.uk](mailto:sales@gpcclearsolutions.co.uk)

##### 1.4 Emergency Telephone Number (Office hours only):

**GPC Clear Solution Ltd (Office hours only):** +44 (0) 7787564967

**National Poison Information Service:** NHS Direct: 0845 4647 or 111 (24/24, 7/7)  
Scotland: NHS 24-08454 24 24 24 (24/24, 7/7)

## SAFETY DATA SHEET

### CLEARFLO NP1868-1

#### 2. HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture:

- Classification according to Regulation (EC) No. 1272/2008: Not classified.

##### 2.2 Label elements:

###### Labelling according to Regulation (EC) 1272/2008:

- Hazard pictogram(s): None.
- Signal word: None.
- Hazard statement(s): None.
- Precautionary statement(s): None.
- Additional elements: None.

##### 2.3 Other hazards:

Aqueous solutions or powders that become wet render surfaces extremely slippery.

- PBT and vPvB assessment: Not PBT or vPvB according to the criteria of Annex XIII of REACH.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances: Not applicable, this product is a mixture.

##### 3.2 Mixtures:

- Hazardous components: Contains no reportable hazardous substances.

## SAFETY DATA SHEET

### CLEARFLO NP1868-1

#### 4. FIRST AID MEASURES

##### 4.1 Description of first aid measures:

- **Inhalation:** Move to fresh air. No hazards which require special first aid measures.
- **Skin contact:** Wash off with soap and plenty of water. Get medical attention if irritation develops and persists.
- **Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In case of persistent irritation, consult a physician.
- **Ingestion:** Rinse mouth with water. Do NOT induce vomiting. Get medical attention if symptoms occur.

##### 4.2 Most important symptoms and effects, both acute and delayed:

Powder can cause localised skin irritation in folds of the skin or under tight clothing. Moderate eye irritation due to effects all powders have on conjunctivae.

##### 4.3 Indication of any immediate medical attention and special treatment needed:

None reasonably foreseeable.

- **Other information:** Aqueous solutions or powders that become wet render surfaces extremely slippery.

#### 5. FIRE-FIGHTING MEASURES

##### 5.1 Extinguishing media:

- **Suitable extinguishing media:** Water. Water spray. Foam. Carbon dioxide (CO<sub>2</sub>). Dry powder. Warning! Aqueous solutions or powders that become wet render surfaces extremely slippery.
- **Unsuitable extinguishing media:** None known.

## SAFETY DATA SHEET

### CLEARFLO NP1868-1

#### 5.2 Special hazards arising from the substance or mixture:

- **Hazardous decomposition products:** Thermal decomposition may produce: nitrogen oxides (NO<sub>x</sub>), carbon oxides (CO<sub>x</sub>). Ammonia (NH<sub>3</sub>). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

#### 5.3 Advice for firefighters:

- **Protective measures:** In the event of fire, wear self-contained breathing apparatus.
- **Other information:** Aqueous solutions or powders that become wet render surfaces extremely slippery.

## 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures:

- **Personal precautions:** Aqueous solutions or powders that become wet render surfaces extremely slippery.
- **Protective equipment:** Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).
- **Emergency procedures:** Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

**6.2 Environmental precautions:** As with all chemical products, do not flush into surface water.

#### 6.3 Methods and material for containment and clearing up:

- **Small spills:** Do not flush with water. Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.
- **Large spills:** Do not flush with water. Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.
- **Residues:** After cleaning, flush away traces with water.

## SAFETY DATA SHEET

### CLEARFLO NP1868-1

**6.4 Reference to other sections:** SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal considerations.

#### 7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling:** Aqueous solutions or powders that become wet render surfaces extremely slippery. Use personal protective equipment.
- 7.2 Conditions for safe storage, including any incompatibilities:** Keep in a dry place. Keep container closed when not in use. Incompatible with strong bases and oxidizing agents.
- 7.3 Specific end use(s):** This information is not available.

#### 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

- 8.1 Control parameters:**
- **National occupational exposure limits:** None known.
  - **Derived No and Minimum Effect Levels (DNELs/DMELs):** None known.
  - **Predicted no-effect concentrations (PNEC):** None known.
- 8.2 Exposure controls:**
- **Appropriate engineering controls:** Use local exhaust if dusting occur. Natural ventilation is adequate in absence of dusts.
  - **Individual protection measures, such as personal protective equipment:**
    - a) **Eye/face protection:** Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
    - b) **Skin protection:**

## SAFETY DATA SHEET

### CLEARFLO NP1868-1

- |     |   |  |
|-----|---|--|
| i)  | <b>Hand protection:</b>                 | PVC or other plastic material gloves. The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.   |
| ii) | <b>Other:</b>                           | Work clothes protecting arms, legs and body. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.   |
| c)  | <b>Respiratory protection:</b>          | No personal respiratory protective equipment normally required. Dust safety masks recommended where working powder concentration is more than 10 mg/m <sup>3</sup> . Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |
| d)  | <b>Additional advice:</b>               | Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and at the end of workday.  |
| -   | <b>Environmental exposure controls:</b> | Do not allow uncontrolled discharge of product into the environment.   |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:

- |   |   |   |
|---|---|---|
| - | <b>Appearance:</b>                              | Granular solid, white.  |
| - | <b>Odour:</b>                                   | None.   |
| - | <b>Odour Threshold:</b>                         | Not applicable.   |
| - | <b>pH:</b>                                      | 5 – 9@ 5 g/L (See Technical Bulletin or Product Specifications for a more precise value, if available). |
| - | <b>Melting point/freezing point:</b>            | > 150°C   |
| - | <b>Initial boiling point and boiling range:</b> | Not applicable.   |
| - | <b>Flash point:</b>                             | Not applicable.   |

## SAFETY DATA SHEET

### CLEARFLO NP1868-1

-	<b>Evaporation rate:</b>	Not applicable.
-	<b>Flammability (solid, gas):</b>	No data available.
-	<b>Upper/lower flammability or explosive limits:</b>	Not expected to create explosive atmospheres.
-	<b>Vapour pressure:</b>	Not applicable.
-	<b>Vapour density:</b>	Not applicable.
-	<b>Relative density:</b>	0.6 – 0.9 (See Technical Bulletin or Product Specifications for a more precise value, if available).
-	<b>Solubility(ies):</b>	Soluble in water.
-	<b>Partition coefficient n-octanol/water (log value):</b>	-2
-	<b>Autoignition temperature:</b>	Does not self-ignite (based on the chemical structure).
-	<b>Decomposition temperature:</b>	> 150°C
-	<b>Viscosity:</b>	See Technical Bulletin
-	<b>Kinematic viscosity:</b>	No data available
-	<b>Explosive properties:</b>	Kst = 0 (Not explosible according to ASTM E1226-19 and EN 14034)
-	<b>Oxidizing properties:</b>	Not expected to be oxidising based on the chemical structure.
-	<b>Particle characteristics:</b>	No data available.
9.2	<b>Other information:</b>	None.

## 10. STABILITY AND REACTIVITY

10.1	<b>Reactivity:</b>	None known.
10.2	<b>Chemical stability:</b>	The product is stable under normal storage conditions.

## SAFETY DATA SHEET

### CLEARFLO NP1868-1

<b>10.3</b>	<b>Possibility of hazardous reactions:</b>	Oxidising agents may cause exothermic reactions. Contact with strong bases liberates ammonia.
<b>10.4</b>	<b>Conditions to avoid:</b>	None known.
<b>10.5</b>	<b>Incompatible materials:</b>	Incompatible with strong bases and oxidising agents.
<b>10.6</b>	<b>Hazardous decomposition products:</b>	Thermal decomposition may produce: nitrogen oxides (NO <sub>x</sub> ), carbon oxides (CO <sub>x</sub> ). Ammonia (NH <sub>3</sub> ). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Information on the product as supplied:

- **Acute oral toxicity:** LD50/oral/rat > 5000 mg/kg.
- **Acute dermal toxicity:** LD50/dermal/rat > 5000 mg/kg.
- **Acute inhalation toxicity:** The product is not expected to be toxic by inhalation.
- **Skin corrosion/irritation:** Not irritating.
- **Serious eye damage/eye irritation:** Not irritating.
- **Respiratory/skin sensitisation:** Not sensitizing.
- **Mutagenicity:** Not mutagenic.
- **Carcinogenicity:** Not carcinogenic.
- **Reproductive toxicity:** Not toxic for reproduction.
- **STOT – Single exposure:** No known effects.
- **STOT – Repeated exposure:** No known effects.
- **Aspiration hazard:** No hazards resulting from the material as supplied.

## SAFETY DATA SHEET

### CLEARFLO NP1868-1

- **Information on other hazards:** The substance is not identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 and is also not on the Candidate List of Substances of Very High Concern according to Article 59 of the EU REACH Regulation for having endocrine disrupting properties.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### Information on the product as supplied:

- **Acute toxicity to fish:** LC50/Danio rerio/96 hours > 100 mg/L (OECD 203)  
LC50/Fathead minnow/96 hours > 100 mg/L (OECD 203)
- **Acute toxicity to invertebrates:** EC50/Daphnia magna/48 hours > 100mg/L (OECD 202)
- **Acute toxicity to algae:** IC50/Scenedesmus subspicatus/72 hours > 100 mg/L (OECD 201)
- **Chronic toxicity to fish:** No data available.
- **Chronic toxicity to invertebrates:** No data available.
- **Toxicity to microorganisms:** No data available.
- **Effects on terrestrial organisms:** No known effects.
- **Sediment toxicity:** No data available.

### 12.2 Persistence and degradability

#### Information on the product as supplied:

- **Degradation:** Not readily biodegradable.
- **Hydrolysis:** Does not hydrolyse.
- **Photolysis:** No data available.

## SAFETY DATA SHEET

### CLEARFLO NP1868-1

- **Environmental fate/exposure:** The active ingredient in this product is a high molecular weight, water-soluble polymer. It adsorbs rapidly and irreversibly to substrates, dissolved organic carbon and/or suspended particles forming an insoluble adduct which precipitates out of the water-column. This adduct is totally eliminated from the wastewater stream during water-treatment and/or sludge dewatering and will not be discharged to surface water.

#### 12.3 Bioaccumulative potential

- **Information on the product as supplied:** Not bioaccumulating.
- **Partition co-efficient (Log Pow):** -2
- **Bioconcentration factor (BCF):** ~0

#### 12.4 Mobility to soil

- **Information on the product as supplied:** None.

#### 12.5 Results of PBT and vPvB assessment:

- **PBT assessment:** Not PBT according to the criteria of Annex XIII of REACH.
- **vPvB assessment:** Not vPvB according to the criteria of Annex XIII of REACH.

#### 12.6 Endocrine disrupting properties:

The substance is not identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 and is also not on the Candidate List of Substances of Very High Concern according to Article 59 of the EU REACH Regulation for having endocrine disrupting properties.

#### 12.7 Other adverse effects:

None known.

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#### 13. DISPOSAL CONSIDERATIONS

##### 13.1 Waste treatment methods:

- **Waste from residues/unused products:** Dispose in accordance with local and national regulations. Can be landfilled or incinerated, when in compliance with local regulations.
- **Contaminated packaging:** Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations. Can be landfilled or incinerated, when in compliance with local regulations.
- **Recycling:** In accordance with local and national regulations.

#### 14. TRANSPORT INFORMATION

14.1 Land transport (ADR/RID): Not classified.

14.2 Sea transport (IMDG): Not classified.

14.3 Air transport (IATA): Not classified.

#### 15. REGULATORY INFORMATION

##### 15.1 Safety, health and environmental regulations specific for the substance or mixture:

All components of this product have been registered or pre-registered with the European Chemicals Agency or are exempt from registration.

##### 15.2 Chemical Safety Assessment:

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A chemical safety assessment for this product has been carried out by the person responsible for producing this Safety Data Sheet. All relevant information used to conduct this assessment are included in this Safety Data Sheet as well as any resulting Risk Reduction Measures.

#### 16. OTHER INFORMATION

**16.1 This data sheet contains changes from the previous version in section(s):**

SECTION 8: Exposure controls/personal protection, SECTION 16: Other information.

**16.2 Key or legend to abbreviation and acronyms used in the safety data sheet:**

**Acronyms**

PBT = persistent, bioaccumulative and toxic

STOT = Specific target organ toxicity

vPvB = Very persistent and very bioaccumulative

**16.3 Training advice:**

Do not handle until all safety precautions have been read and understood

**16.4 This SDS was prepared in accordance with the following:**

Regulation (EC) N° 1907/2006, as amended

Regulation (EC) N° 1272/2008, as amended

Version: 20.01.b

PRAC001

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only a guidance for safe handling, use, process, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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 unless specified in the text.

### ANNEX(ES)

This product is not hazardous as supplied and/or does not contain hazardous components:

- . Which require REACH registration; or,
- . which demonstrate relevant effects which would require a chemical safety assessment; or,
- . which are present at concentrations above their cut-off value

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Therefore, according to Regulation (EC) No 197/2006, Article 31, paragraph 7, an Exposure Scenario is not required as an annex to the Safety Data Sheet.

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