MacDermid Enthone

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

SAFETY DATA SHEET

AUFLUX SOLDERING SOLUTION

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

1.1 Product identifier

Product name : AUFLUX SOLDERING SOLUTION

Product code : 165172

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

Identified uses
Surface Treatment. Industrial applications.

1.3 Details of the supplier of the safety data sheet

e-mail address of person responsible for this SDS : sdsuk@macdermid.com; regulatory.de@macdermid.com

Supplier : MacDermid Performance Solutions UK Limited
198 Golden Hillock Road
Birmingham
B11 2PN
UK

HSO Herbert Schmidt GmbH & Co. KG
Schorberger Str. 18 - 26
42699 Solingen
Germany

Information contact : Tel (+44) 121 606 8100
ukcustomer.services@macdermid.com

HSO Tel: (+49) 212 65850

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : UK NPIS 0344 892 0111 (Healthcare professionals only)

Supplier

Telephone number : Carechem24: (+44) 1865 407333; (+44) 1235 239 670 (across Europe)

Hours of operation : 24/7

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Repr. 1B, H360FD

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H360FD - May damage fertility. May damage the unborn child.

Precautionary statements

Prevention : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.

Response : P308 + P313 - IF exposed or concerned: Get medical advice or attention.

Storage :

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : disodium tetraborate, anhydrous
boric acid

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

Special packaging requirements

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
disodium tetraborate, anhydrous	REACH #: 01-2119490790-32 EC: 215-540-4 CAS: 1330-43-4 Index: 005-011-00-4	<10	Eye Irrit. 2, H319 Repr. 1B, H360FD (oral)	[1] [2]
boric acid	EC: 233-139-2 CAS: 10043-35-3 Index: 005-007-00-2	≤5	Repr. 1B, H360FD (oral)	[1]

SECTION 3: Composition/information on ingredients

ammonium chloride	REACH #: 01-2119487950-27 EC: 235-186-4 CAS: 12125-02-9 Index: 017-014-00-8	<1	Acute Tox. 4, H302 Eye Irrit. 2, H319 **See Section 16 for the full text of the H statements declared above.**	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

SECTION 4: First aid measures

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Non-combustible.
Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products : Decomposition products may include the following materials:
phosphorus oxides
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

SECTION 6: Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 5 to 40°C (41 to 104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : No specific measures identified.

Industrial sector specific solutions : No specific measures identified.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
disodium tetraborate, anhydrous	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 1 mg/m³ 8 hours.
ammonium chloride	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 20 mg/m³ 15 minutes. Form: Fume TWA: 10 mg/m³ 8 hours. Form: Fume

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

EU DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
disodium tetraborate, anhydrous	DNEL	Long term Oral	0.79 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	3.4 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	6.7 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	17.04 mg/m³	General population	Local
	DNEL	Long term Inhalation	17.04 mg/m³	General population	Local
	DNEL	Short term Inhalation	17.04 mg/m³	Workers	Local
	DNEL	Long term Inhalation	17.04 mg/m³	Workers	Local
	DNEL	Long term Dermal	159.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	316.4 mg/kg bw/day	Workers	Systemic
boric acid	DNEL	Short term Oral	0.98 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.98 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4.15 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	8.3 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	196 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	392 mg/kg bw/day	Workers	Systemic
ammonium chloride	DNEL	Long term Inhalation	9.4 mg/m³	General population	Systemic
	DNEL	Long term Oral	11.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	33.5 mg/m³	Workers	Systemic
	DNEL	Short term Oral	55.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	55.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	128.9 mg/kg bw/day	Workers	Systemic

EU PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
ammonium chloride	Fresh water	1.2 mg/l	Assessment Factors
	Marine water	11.2 mg/l	Assessment Factors
	Sewage Treatment Plant	16.2 mg/l	Assessment Factors
	Soil	0.163 µg/kg dwt	Assessment Factors

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

SECTION 8: Exposure controls/personal protection

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If inhalation hazards exist, a full-face respirator may be required instead. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Chemical splash goggles. Use eye protection according to EN 166.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Recommendations: In splash contact: 1 - 4 hours (breakthrough time): polyvinyl chloride (PVC), neoprene. Long term exposure: > 8 hours (breakthrough time): butyl rubber. (thickness: 0.5 mm) Wear suitable gloves tested to EN374.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Green. [Transparent]

Odour : Odourless.

Odour threshold : Not relevant/applicable due to nature of the product.

Melting point/freezing point : There are no data available on the mixture itself.

Initial boiling point and boiling range : 110°C (230°F)

Flammability (solid, gas) : There are no data available on the mixture itself.

Upper/lower flammability or explosive limits : There are no data available on the mixture itself.

Flash point : Not available.

Auto-ignition temperature :

SECTION 9: Physical and chemical properties

Ingredient name	°C	°F	Method
ammonium chloride	>400	>752	EU A.16

Decomposition temperature : There are no data available on the mixture itself.

pH : 6 to 8

Viscosity : There are no data available on the mixture itself.

Solubility(ies) :

Not available.

Solubility in water : There are no data available on the mixture itself.

Miscible with water : Yes.

Partition coefficient: n-octanol/water : Not applicable.

Vapour pressure :

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
water	23.8	3.2				

Evaporation rate : There are no data available on the mixture itself.

Relative density : There are no data available on the mixture itself.

Density : 1.07 to 1.16 g/cm³ [20°C (68°F)]

Vapour density : There are no data available on the mixture itself.

Explosive properties : There are no data available on the mixture itself.

Oxidising properties : There are no data available on the mixture itself.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

SAPT : Not relevant/applicable due to nature of the product.

SECTION 10: Stability and reactivity

10.1 Reactivity : Non-reactive or compatible with the following materials: oxidising materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
disodium tetraborate, anhydrous	LD50 Oral	Rat	1200 mg/kg	-
ammonium chloride	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	1410 mg/kg	-

Conclusion/Summary : Not tested

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
ammonium chloride	1410	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
boric acid	Skin - Mild irritant	Human	-	72 hours 15 mg l	-
ammonium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-

Conclusion/Summary

Skin : Not tested

Eyes : Not tested

Respiratory : Not tested

Sensitisation

Conclusion/Summary

Skin : Not tested

Respiratory : Not tested

Mutagenicity

Conclusion/Summary : Not tested

Carcinogenicity

Conclusion/Summary : Not tested

Reproductive toxicity

Conclusion/Summary : Not tested

Teratogenicity

Conclusion/Summary : Not tested

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : Not tested

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

SECTION 11: Toxicological information

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage fertility. May damage the unborn child.

Other information : No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
disodium tetraborate, anhydrous	Acute LC50 291.4 mg/l Marine water	Crustaceans - Opossum shrimp - *Americamysis bahia*	48 hours
	Acute LC50 141000 µg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	48 hours
	Acute LC50 1900 mg/l Fresh water	Fish - Fathead minnow - *Pimephales promelas*	96 hours
boric acid	Acute LC50 45.5 mg/l Fresh water	Crustaceans - Water flea - *Ceriodaphnia dubia*	48 hours
	Acute LC50 133000 µg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	48 hours
	Acute LC50 75 mg/l Marine water	Fish - Red sea bream - *Pagrus major*	96 hours
	Chronic NOEC 6000 µg/l Fresh water	Daphnia - Water flea - *Daphnia*	21 days

SECTION 12: Ecological information

		magna	
	Chronic NOEC 2100 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*	87 days
ammonium chloride	Acute EC50 0.07 mg/l Marine water	Algae - Neptune's Necklace - *Hormosira banksii* - Gamete	72 hours
	Acute LC50 20 µg/l Fresh water	Crustaceans - Giant river prawn - *Macrobrachium rosenbergii* - Post-larvae	48 hours
	Acute LC50 390 µg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Young	48 hours
	Acute LC50 80 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*	96 hours
	Chronic EC10 0.03 mg/l Fresh water	Daphnia - Water flea - *Daphnia obtusa*	21 days
	Chronic NOEC 0.6 mg/l Marine water	Algae - Algae - *Entomoneis punctulata* - Exponential growth phase	72 hours
	Chronic NOEC 330 µg/l Fresh water	Crustaceans - Amphipod - *Crangonyx sp.* - Juvenile (Fledgling, Hatchling, Weanling)	21 days
	Chronic NOEC 0.006 mg/l Fresh water	Fish - Channel catfish - *Ictalurus punctatus* - Fry	30 days

Conclusion/Summary : Ecological testing has not been conducted on this product.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
AUFLUX SOLDERING SOLUTION	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
disodium tetraborate, anhydrous	-1.53	-	Low
boric acid	-1.09	-	Low
ammonium chloride	-3.2	-	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

SECTION 13: Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not applicable - not transported in bulk

SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

SECTION 15: Regulatory information

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Toxic to reproduction	disodium tetraborate, anhydrous boric acid	Candidate Candidate	- -	18-Jun-10 18-Jun-10

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Classification	Justification
Repr. 1B, H360FD	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H360FD	May damage fertility. May damage the unborn child.

Full text of classifications

Acute Tox. 4	ACUTE TOXICITY - Category 4
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B

Date of printing : 13 September 2024

Date of issue/ Date of revision : 13 September 2024

Date of previous issue : 2 May 2023

Version : 1.02

SECTION 16: Other information

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MacDermid Enthone SDS CLP Europe (transfer)