

SAFETY DATA SHEET

Revision date: 12/09/2022

SECTION 1

Product & Supplier Identification

1.1 Product identifier:

Product Name: Ultrasonic Powder for PCB & Flux Product Code: UTPCB200, UTPCB400, UTPCB600

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

Used as a: Medical Device Cleaning Agent. For professional users/industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Detail of the supplier of the safety data sheet:

Company: Shesto Ltd

Address: Sunley House, Olds Approach, Watford WD18 9TB, United Kingdom

Telephone: +44 (0)20 8451 6188

1.4 Emergency telephone number Emergency telephone number: 999

SECTION 2

Hazards Identification

2.1 Classification of the mixture:

GB CLP Regulation:

Classification of this product has been carried out in accordance with GB CLP Regulation.

Acute Tox. 4: Acute inhalation toxicity, Category 4, H332

Eye Irrit. 2: Eye irritation, Category 2, H319

Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

Warning



Hazard statements:

Acute Tox. 4: H332 - Harmful if inhaled.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Skin Irrit. 2: H315 - Causes skin irritation.

Precautionary statements:

P264: Wash thoroughly after use.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/protective footwear.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other Hazards:

Product fails to meet PBT/vPvB criteria



SECTION 3

Composition/Information on Ingredient

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product Contains:

Identification	Chemical name/Classification		Concentration
CAS: 497-19-8	sodium carbonate Eye Irrit. 2: H319 - Warning	!	30 - <50 %
CAS: 15630-89-4	Disodium carbonate, compound with hydrogen peroxide (2:3) Acute Tox. 4: H302; Eye Dam. 1: H318; Ox. Sol. 2: H272 - Danger	(1) (2) (3)	1 - <10 %
CAS: 10213-79-3	Disodium metasilicate · 5 H2O Skin Corr. 1B: H314; STOT SE 3: H335 - Danger	♦	1 - <10 %
CAS: 151-21-3	Sodium dodecyl sulphate (powder) Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Flam. Sol. 2: H228; Skin Irrit. 2: H315; STOT SE 3: H335 - Danger	♦ ♦	1 - <10 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4

First Aid Measures

4.1 Description of First Aid Measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply,etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable



SECTION 5

Fire Fighting Measures

5.1 Extinguishing Media

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. Use preferably water.

Unsuitable extinguishing media:

Non-applicable

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessaw to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankes, portable first aid kit,...).

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6

Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal For emergency responders: See section 8.

6.2 Environmental precautions

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up

It is recommended: Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections

See sections 8 and 13.

SECTION 7

Handling & Storage

7.1 Precautions for safe handling

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and destroy using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Due to its inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)



7.2 Conditions for safe storage, including any incompatibilities

A.- Technical measures for storage

Minimum Temp: 0 °C Maximum Temp: 40 °C Maximum time: 24 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8

Exposure Control/ Personal Protection

8.1 Control parameters

Substances whose occupational exposure limits have to be monitored in the workplace: Nuisance dust: Inhalable dust 10 mg/m3 // Respirable dust 4 mg/m3

DNEL (Workers):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
sodium carbonate	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 497-19-8	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 207-838-8	Inhalation	Non-applicable	Non-applicable	Non-applicable	10 mg/m ³
Disodium carbonate, compound with hydrogen peroxide (2:3)	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 15630-89-4	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 239-707-6	Inhalation	Non-applicable	Non-applicable	Non-applicable	5 mg/m ³
Disodium metasilicate 5 H2O	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 10213-79-3	Dermal	Non-applicable	Non-applicable	1,49 mg/kg	Non-applicable
EC: 600-279-4	Inhalation	Non-applicable	Non-applicable	6,22 mg/m³	Non-applicable
Sodium dodecyl sulphate (powder)	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 151-21-3	Dermal	Non-applicable	Non-applicable	4060 mg/kg	Non-applicable
EC: 205-788-1	Inhalation	Non-applicable	Non-applicable	285 mg/m ³	Non-applicable

DNEL (General population):

		Short e	xposure	Long exposure	
Identification		Systemic	Local	Systemic	Local
sodium carbonate CAS: 497-19-8 EC: 207-838-8		Non-applicable Non-applicable Non-applicable	Non-applicable Non-applicable 10 mg/m ³	Non-applicable	Non-applicable Non-applicable Non-applicable
Disodium metasilicate 5 H2O CAS: 10213-79-3 EC: 600-279-4	Oral	Non-applicable Non-applicable Non-applicable	Non-applicable	0,74 mg/kg 0,74 mg/kg	Non-applicable Non-applicable Non-applicable
Sodium dodecyl sulphate (powder) CAS: 151-21-3 EC: 205-788-1	Oral Dermal Inhalation	Non-applicable Non-applicable Non-applicable	Non-applicable Non-applicable Non-applicable	2440 mg/kg	Non-applicable Non-applicable Non-applicable

PNEC:

THEC.				
Identification				
Disodium carbonate, compound with hydrogen peroxide (2:3)	STP	16,24 mg/L	Fresh water	0,035 mg/L
CAS: 15630-89-4	Soil	Non-applicable	Marine water	0,035 mg/L
EC: 239-707-6	Intermittent	0,035 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
Disodium metasilicate · 5 H2O	STP	1000 mg/L	Fresh water	7,5 mg/L
CAS: 10213-79-3	Soil	Non-applicable	Marine water	1 mg/L
EC: 600-279-4	Intermittent	7,5 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable
Sodium dodecyl sulphate (powder)	STP	1,35 mg/L	Fresh water	0,176 mg/L
CAS: 151-21-3	Soil	1,29 mg/kg	Marine water	0,018 mg/L
EC: 205-788-1	Intermittent	0,055 mg/L	Sediment (Fresh water)	6,97 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,697 mg/kg



8.2 Exposure controls

Engineering measures

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding << UKCA marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are

C.- Specific protection for the hands

Pictogram	PPE	Remarks
Mandatory hand protection	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+ A1:2010 and EN ISO 374-1:2016+A1:2018

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Remarks
	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a
Mandatory face protection	spasn projections.	risk of splashing.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
Emergency	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	Emergency eye wash	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental

spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9 Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:

Physical state at 20 °C: Solid Appearance: Powdery Colour: Blue

Odour: Characteristic Non-applicable * Odour threshold:

Volatility:

Boiling point at atmospheric pressure: Non-applicable * Vapour pressure at 20 °C: Non-applicable * Vapour pressure at 50 °C: Non~applicable * Evaporation rate at 20 °C: Non-applicable *



Product description:

Density at 20 °C: 1932.4 kg/m3

Relative density at 20 °C: 1.932

Dynamic viscosity at 20 °C:

Kinematic viscosity at 20 °C:

Kinematic viscosity at 40 °C:

Concentration:

Non-applicable *

Non-applicable *

Non-applicable *

pH: 10 - 11

Vapour density at 20 °C:

Partition coefficient n-octanol/water 20 °C:

Solubility in water at 20 °C:

Solubility properties:

Decomposition temperature:

Melting point/freezing point:

Non-applicable *
Non-applicable *
Non-applicable *
Non-applicable *

Flammability:

Flash Point:

Flammability (solid, gas):

Autoignition temperature:

Lower flammability limit:

Upper flammability limit:

Non-applicable *
Non-applicable *
Non-applicable *

Explosive (Solid):

Lower explosive limit: Non~applicable *
Upper explosive limit: Non-applicable *

Particle characteristics:

Median equivalent diameter: Non-applicable *

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:

Oxidising properties:

Corrosive to metals:

Heat of combustion:

Non-applicable *
Non-applicable *
Non-applicable *

Aerosols-total percentage (by mass) of flammable

Components: Non-applicable *

Other safety characteristics:

Surface tension at 20 °C: Non-applicable * Non-applicable * Non-applicable *

^{*}Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10	Stability & Reactivity

10.1 Reactivity

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Precaution	Not applicable	Precaution	Precaution	Not applicable

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10.5 Incompatible materials

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Precaution	Avoid alkalis or strong bases

10.6 Hazardous decomposition products

See subsection 10 3 10 4 specific decomposition products Depending on the decomposition conditions, complex mixtures of chemical substances can be released carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11

Toxicological Information

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available **Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

IARC: C.I.Acid Blue 9 (3)

- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.



Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus	
sodium carbonate	LD50 Oral	2800 mg/kg	Rat	
CAS: 497-19-8	LD50 Dermal	Non-applicable		
	LC50 Inhalation	Non-applicable		
Disodium carbonate, compound with hydrogen peroxide (2:3)	LD50 Oral	1034 mg/kg	Rat	
CAS: 15630-89-4	LD50 Dermal	Non-applicable		
	LC50 Inhalation	Non-applicable		
Sodium dodecyl sulphate (powder)	LD50 Oral	1200 mg/kg	Rat	
CAS: 151-21-3	LD50 Dermal	Non-applicable		
	LC50 Inhalation	1,5 mg/L (ATEi)		

SECTION 12

Ecological Information

12.1 Toxicity

Identification	Conce	ntration	Species	Genus
sodium carbonate	LC50	740 mg/L (96 h)	Gambussia afinis	Fish
CAS: 497-19-8	EC50	265 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
Disodium metasilicate 5 H2O	LC50	210 mg/L (96 h)	Brachydanio rerio	Fish
CAS: 10213-79-3	EC50	216 mg/L (96 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		

12.2 Persistence and degradability

Non-applicable

12.3 Bioaccumulative potential

Non-applicable

12.4 Mobility in soil

Non-applicable

12.5 Results of PBT and vPvB assessment

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects

Not described

SECTION 13

Disposal Considerations

13.1 Waste treatment methods

Code	Description	Waste class
	It is not possible to assign a specific code, as it depends on the intended use by the user	Dangerous

Type of waste:

HP4 Irritant—skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as nondangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated: UK legislation: The Waste Regulations 2011.





SECTION 14

Transport Information

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15

Regulatory Information

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

Substances listed in UK REACH Authorisation List (Annex 14): Non-applicable

Substances listed in UK candidate list of substances of very high concern (SVHCs): Non-applicable

The Detergents (Amendment) (EU Exit) Regulations:

In accordance with this regulation the product complies with the following:

The tensoactives contained in this mixture comply with the biodegradibility criteria stipulated in The Detergents (Amendment) (EU Exit) Regulations. The information to prove this is available to the relevant authorities of the Member States and will be shown to them by direct request or the request of a detergent manufacturer.

Labelling for contents:

Component	Concentration interval
Oxygen-based bleaching agents	% (w/w) < 5
Anionic surfactants	% (w/w) < 5
EDTA and salts thereof	% (w/w) < 5
Phosphonates	% (w/w) < 5

The Control of Major Accident Hazards Regulations 2015:

Non-applicable

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc):

Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplacespecific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.

Control of Substances Hazardous to Health Regulations 2002 (as amended)

EH40/2005 Workplace exposure limits.

COSHH-SR24 Storing chemical products (small scale).

COSHH-SR2 Diluting chemical concentrates.

COSHH-SR4 Manual cleaning and disinfecting surfaces.

The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019: SCHEDULE 34 -

Amendment of Regulation (EC) No 1223/2009 and related amendments.

The Detergents (Amendment) (EU Exit) Regulations 2020.

SECTION 16

Other Information

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

H319: Causes serious eve irritation.

H315: Causes skin irritation.

H332: Harmful if inhaled.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3



GB CLP Regulation:

Acute Tox. 4: H302 - Harmful if swallowed.

Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled.

Eye Dam. 1: H318 - Causes serious eye damage. Eye Irrit. 2: H319 - Causes serious eye irritation.

Flam. Sol. 2: H228 - Flammable solid.

Ox. Sol. 2: H272 - May intensify fire, oxidiser.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

Skin Irrit. 2: H315 - Causes skin irritation.

STOT SE 3: H335 - May cause respiratory irritation.

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

http://echa.europa.eu http://eur-lex.europa.eu

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code IATA: International Air Transport Association ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50 EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer