

ULTRApate

March 2021 - Version 1

Section 1 - Identification of the substance/preparation and the company

Product Name -	ULTRApate
Use -	Aluminium Heat Diffusion Plates
Company -	Collecta Limited , Bounty House, Medway Valley Park, Rochester, Kent, ME2 2NF
Email/Web Address -	technical@collecta.co.uk www.collecta.co.uk
Emergency Contact No. -	During office hours - 01634 296677. Outside of these please contact a medical professional.

Section 2 - Hazards Identification

2.1 Acute health effects

General - Low toxicity Aluminium metal in most forms is non toxic. It is not readily absorbed through the skin or gastro – intestinal tract and only poorly through the lungs.

Eyes - Due to product form, irritation is not expected unless cut or heated and dust or fumes generated. Aluminium dust may cause eye discomfort and irritation, pain, redness and conjunctivitis.

Skin - Due to product form, irritation is not expected unless cut or heated and dust or fumes are generated. If heated contact with hot surfaces is likely to cause blisters and burns. Aluminium dust may be abrasive to the skin and cause discomfort.

Inhaled - Aluminium metal is essentially non-toxic. Inhaling aluminium dust or fumes may be discomforting to the upper respiratory tract.

Swallowed - The solid is regarded as non – toxic and due to product form ingestion is unlikely.

Chronic health effects - There are known chronic health effects associated with aluminium metal. Fumes of certain alloying elements in aluminium may result in upper respiratory irritation. If aluminium is welded, prolonged or repeated inhalation of metal fume may cause dizziness, respiratory irritation and nausea. Exposure to fumes from smelting and abrasive manufacture can initiate pulmonary fibrosis.

Section 3 - Composition/Information on ingredients

Aluminium \geq 98.5% CAS No. 7429-90-5

Primary Alloying Elements -

Alloying Element	Content (wt%)	CAS No.
Iron (FE)	\leq 1.0	7439-89-6
Silicon (Si)	\leq 0.5	7440-21-3
Magnesium (Mg)	\leq 0.5	7439-95-4
Manganese (Mn)	\leq 0.5	7439-96-5
Copper (Cu)	\leq 0.2	7440-50-8
Zinc (Zn)	\leq 0.07	7440-66-6
Titanium (Ti)	\leq 0.05	7440-32-6

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 and hence require reporting in this section.

Section 4 - First Aid Measures

4.1 First aid procedures

Eye contact - Dust and fumes from processing: Rinse eyes with plenty of water or saline for at least 15 minutes, consult a physician.

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4.1 First aid procedures (continued)

Skin contact -

Dust and fume from processing: wash with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Inhalation -

Dust and fumes from processing: Remove to fresh air. Check for clear airway, breathing, and presence of pulse. Provide cardiopulmonary resuscitation for persons without pulse or respiration. Consult a physician.

Section 5 - Fire Fighting Measures

5.1 Extinguishing media

Flammable/combustible properties -

This product does not present a fire or explosion hazard as shipped. Small chips, fine turnings and dust from processing may be ignitable.

Fire/explosion hazards -

May be a potential hazard under the following conditions Dust clouds may be explosive. Even a minor dust cloud can explode violently. Dust accumulation on the floor, ledges and beams can present a risk of ignition, flame propagation and secondary explosions.

Chippings, fines and dust in contact with water can generate flammable/explosive hydrogen gas, this gas could present an explosion hazard in poorly ventilated spaces.

Dust and fines in contact with certain metal oxides (e.g. iron, copper) can create a thermite reaction with considerable heat generation which can be initiated by a weak ignition source.

Molten metal in contact with water / moisture if entrapped can lead to violent reaction leading to explosion.

5.2 Extinguishing media

Suitable extinguishing media -

Use class D extinguishing agents on fines, dusts or molten metal, Use course water spray on chippings and turnings.

Unsuitable extinguishing media -

DO NOT USE water in fighting fires around molten metal or halogenated extinguishing agents on small chippings or fines.

Protection for fire-fighters -

Fire Fighters should use approved positive pressure, self contained breathing apparatus and full protective clothing.

Section 6 - Accidental Release Measure

6.1 General information

Spill or leak procedure -

Collect scrap for recycling. If molten: contain flow using dry sand or salt flux as a dam. All tooling (e.g. Shovels or hand tools) and containers which come into contact with molten metal must be preheated or specially coated, rust free and approved for such use.

Section 7 - Handling and storage

Handling: Keep material dry. Avoid generating dust. Avoid contact with sharp edges or heated metal. Hot and cold aluminium are not visibly different. Hot aluminium does not glow red.

Requirements for processes which generate dusts or fines: Local ventilation and vacuum systems must be designed to handle explosive dusts, dust collection systems must be dedicated to aluminium dust only. Avoid all ignition sources good housekeeping practises must be maintained, dust accumulation on ledges and beams can present a risk of ignition.

Section 8 - Exposure controls

8.1 Personal protection

Aluminium metal and oxide -

Respirable -

Eye/face protection -

Total dust 10 mg/m³

5 mg/m³

wear safety glasses with side shields

Skin protection -

Wear impervious gloves to avoid repeated or prolonged skin contact with residual oils.

Respiratory protection -

Dust and fumes use FP 3 standard respiratory protection.

Section 9 - Physical and Chemical Properties

Appearance & odour -

Silver coloured metal with no odour

Solubility in water -

Negligible

Vapour density -

N/A

Vapour pressure -

Negligible @ 25°C

Freezing/melting point -

620-660°C

Boiling point -

2450°C

Specific gravity -

2.7g/cm³

Flashpoint -

Not relevant

Flammability limits -

Non flammable

Volatile components -

0%

Section 10 - Stability and reactivity

Aluminium alloys are stable at normal room temperature under normal storage and handling conditions.

Chippings, fines and molten metal are considerably more reactive when exposed to water, heat acids and alkalis or metal oxides.

Section 11 - Toxicological Information

Aluminium dust/fines and fumes -

low health risk by inhalation, generally considered biologically inert (milling cutting & grinding).

Some products are supplied with an oil coating or have residual oil from the manufacturing process. Oil can cause irritation of the skin which with prolonged or repeated contact can cause dermatitis.

Section 12 - Environmental Information

Ecotoxicity -

There is little tendency for bioaccumulation along the food chain.

Environmental Degradation: In water aluminium will eventually precipitate in sediments. Aluminium Alloys will dissolve in salt water.

Section 13 - Notes on disposal

Reuse or Recycle material whenever possible.

Section 14 - Transport information

Aluminium is considered stable under normal handling conditions but must be kept clean and dry during transport.

Section 15 - Disclosures on legal provisions

Control of substances Hazardous to Health Regulations 2002 Dangerous Substances and Explosive Atmospheres Regulations 2002 EH 40 / 2005 Workplace exposure Limits third edition. Regulatory Reform Order 2005 Regulation, Evaluation, Authorisation and Restriction of Chemicals 2007

Section 16 - General information

Supplementary information about this product can be supplied by Collecta Ltd.

The information given is correct to the best of our knowledge at the time of publication but without guarantee of accuracy. It does not represent a guarantee of the properties of the product. We do not accept any responsibility for damage and claims arising from handling, transport, storage or disposal of the product. This data sheet applies to the product named above. If the product is used as parts of other products, information in the safety data sheet may be invalidated. No warranty is hereby expressed or implied.