Safety Data Sheet according to (EC) No 1907/2006

SDS No. : 273659
V003.3

BONDERITE M-PA 6010 known as Passerite 6010

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

1.1. Product identifier
BONDERITE M-PA 6010 known as Passerite 6010

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Product for the conversion treatment of metals

1.3. Details of the supplier of the safety data sheet
Henkel Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000
Fax-no.: +44 1442 278071

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number
24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Corrosive to metals	Category 1
H290 May be corrosive to metals.	
Skin corrosion	Category 1A
H314 Causes severe skin burns and eye damage.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:

Signal word: Danger

Hazard statement:
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statement: Prevention	P260 Do not breathe mist/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement: Response	P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor.

2.3. Other hazards
None if used properly.
The classification as corrosive R35/H314 1A is due to the extreme pH.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Base substances of preparation:
inorganic salts
inorganic acids

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Chromium trinitrate 13548-38-4	236-921-1	10- 20 %	Ox. Sol. 2 H272 Skin Irrit. 2; Dermal H315 Eye Irrit. 2 H319 Aquatic Chronic 3 H412
Phosphoric acid 7664-38-2	231-633-2 01-2119485924-24	1- 10 %	Met. Corr. 1 H290 Skin Corr. 1B H314
Chromium phosphate 7789-04-0	232-141-0	7- 25 %	Acute Tox. 4; Oral H302 Eye Irrit. 2 H319

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Fresh air, consult doctor.

Skin contact:
Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing.
Immediate medical treatment necessary.

Eye contact:
Immediately flush eyes with soft jet of water or eye rinse solution for at least 15 minutes. Hold eyelid wide-open. Seek a doctor/hospital, eye flushing should continue during transportation to a doctor.

Ingestion:
Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.
Immediate medical treatment necessary.

4.2. Most important symptoms and effects, both acute and delayed
Causes burns.

4.3. Indication of any immediate medical attention and special treatment needed
See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:
None known

5.2. Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in fires.

5.3. Advice for firefighters
Wear self-contained breathing apparatus.

Additional information:
Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes.
Keep unprotected persons away.

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up
Neutralize with acid-binding material (e.g. powdered limestone).
Take up with liquid-absorbing material (sand).
Do not use any organic materials (e.g. sawmill waste).
Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
When diluting, always stir slowly the product into standing water.
Ensure that workrooms are adequately ventilated.
Avoid skin and eye contact.
See advice in section 8

Hygiene measures:
Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.
Wash contaminated clothing before reuse.
The workplace should be equipped with an emergency shower and eye-rinsing facility.

7.2. Conditions for safe storage, including any incompatibilities
Store only in the original container.
Do not use packing made of metal.
Keep container in a well ventilated place.
Keep container tightly sealed.
Store in a cool, frost-free place.
Must be stored in a room with spill collection facilities.
Keep only in original container.
Do not store together with strong bases or very alkaline substances.

7.3. Specific end use(s)
Product for the conversion treatment of metals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m^3	Value type	Short term exposure limit category / Remarks	Regulatory list
Chromium trinitrate 13548-38-4 [CHROMIUM (III) COMPOUNDS (AS CR)]		0,5	Time Weighted Average (TWA):		EH40 WEL
Chromium trinitrate 13548-38-4 [CHROMIUM METAL, INORGANIC CHROMIUM(II) COMPOUNDS AND INORGANIC CHROMIUM(III) COMPOUNDS (INSOLUBLE)]		2	Time Weighted Average (TWA):	Indicative	ECTLV
Chromium orthophosphate 7789-04-0 [CHROMIUM (III) COMPOUNDS (AS CR)]		0,5	Time Weighted Average (TWA):		EH40 WEL
Chromium orthophosphate 7789-04-0 [CHROMIUM METAL, INORGANIC CHROMIUM(II) COMPOUNDS AND INORGANIC CHROMIUM(III) COMPOUNDS (INSOLUBLE)]		2	Time Weighted Average (TWA):	Indicative	ECTLV
Orthophosphoric acid 7664-38-2 [ORTHOPHOSPHORIC ACID]		1	Time Weighted Average (TWA):		EH40 WEL
Orthophosphoric acid 7664-38-2 [ORTHOPHOSPHORIC ACID]		2	Short Term Exposure Limit (STEL):		EH40 WEL
Orthophosphoric acid 7664-38-2 [ORTHOPHOSPHORIC ACID]		2	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Orthophosphoric acid 7664-38-2 [ORTHOPHOSPHORIC ACID]		1	Time Weighted Average (TWA):	Indicative	ECTLV

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Orthophosphoric acid 7664-38-2	Workers	Inhalation	Long term exposure - local effects		1 mg/m3	
Orthophosphoric acid 7664-38-2	general population	Inhalation	Long term exposure - local effects		0,73 mg/m3	
Orthophosphoric acid 7664-38-2	Workers	Inhalation	Acute/short term exposure - systemic effects		2 mg/m3	

Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/suction at the workplace.

Respiratory protection:
In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter.
This recommendation should be matched to local conditions.

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Goggles which can be tightly sealed.

Skin protection:
Protective clothing that covers arms and legs.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid clear dark green
Odor	characteristic
Odour threshold	No data available / Not applicable
pH (20 °C (68 °F); Conc.: 1 % product; Solvent: Demineralised water)	2,0 - 2,5
Initial boiling point	110 - 120 °C (230 - 248 °F)
Flash point	Not applicable
Decomposition temperature	No data available / Not applicable
Vapour pressure (50 °C (122 °F))	
Vapour pressure	102 - 132 mbar

(50 °C (122 °F))	
Density	1,358 - 1,390 g/cm3
(20 °C (68 °F))	
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative)	Miscible
(20 °C (68 °F); Solvent: Water)	
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
Reacts with alkalis: Heat generated.
Reaction with reducing agents.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
No decomposition if used according to specifications.

10.5. Incompatible materials
See section reactivity

10.6. Hazardous decomposition products
None if used for intended purpose.
In case of fire toxic gases can be released.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:
The classification as corrosive R35/H314 1A is due to the extreme pH.
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:
LD50 > 2000 mg/kg body weight

Skin irritation:
Causes severe skin burns and eye damage.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Phosphoric acid 7664-38-2	LD50	2.600 mg/kg	oral		rat	OECD Guideline 423 (Acute Oral toxicity)

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Phosphoric acid 7664-38-2	Acute toxicity estimate (ATE)	5,1 mg/l	Aerosol			Expert judgement

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Phosphoric acid 7664-38-2	corrosive	24 h	rabbit	

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Phosphoric acid 7664-38-2	not sensitising	no data	human	

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Phosphoric acid 7664-38-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Reproductive toxicity:

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	Species	Method
Phosphoric acid 7664-38-2	NOAEL F1 = >= 500 mg/kg	one-generation study oral: gavage		rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Phosphoric acid 7664-38-2	NOAEL=250 mg/kg	oral: gavage	6 wdaily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

SECTION 12: Ecological information

General ecological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.
Do not empty into drains / surface water / ground water.

Other adverse effects:
The product contains wastewater-relevant heavy metals. Officially determined threshold values for wastewater (also for partial flows, if applicable) and local discharge guidelines must be observed.
If acidic or alkaline products are discharged into wastewater installations care must be taken that the discharged wastewater has a pH in the range pH 6 - 10, as pH variations could cause disorders in wastewater channels and biological sewage treatment plants.
The local discharge regulations take precedence.

12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Chromium trinitrate 13548-38-4	LC50	> 100 mg/l	Fish	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Phosphoric acid 7664-38-2	LC50	> 100 mg/l	Fish			OECD Guideline 203 (Fish, Acute Toxicity Test)
Phosphoric acid 7664-38-2	EC50	> 100 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Phosphoric acid 7664-38-2	EC50	> 100 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	100 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Chromium phosphate 7789-04-0	LC50	> 100 mg/l	Fish	48 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential / 12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
Phosphoric acid 7664-38-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
In consultation with the responsible local authority, must be subjected to special treatment.

Recommended cleaning agents
Clean the packaging with water.

Waste code
The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.
060199

SECTION 14: Transport information

14.1. UN number

ADR	3264
RID	3264
ADN	3264
IMDG	3264
IATA	3264

14.2. UN proper shipping name

ADR	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid,Chromium trinitrate)
RID	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid,Chromium trinitrate)
ADN	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid,Chromium trinitrate)
IMDG	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid,Chromium trinitrate)
IATA	Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid,Chromium trinitrate)

14.3. Transport hazard class(es)

ADR	8
RID	8
ADN	8
IMDG	8
IATA	8

14.4. Packaging group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable

	Tunnelcode: (E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

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

VOC content (1999/13/EC)	0,0 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Great Britain):

Remarks	Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, e.g COSHH Essentials. EH40 Occupational Exposure Limits Chemicals (Hazard Information & Packaging for Supply) Regulations. The Personnel Protective Equipment at Work Regulations. The Carriage of Dangerous Goods by Road Regulations. The Health & Safety at Work Act 1974. (Note: Use latest editions/amendments of above referenced documents.)

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

H272 May intensify fire; oxidizer.
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Further information:
This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Label elements (DPD):

C - Corrosive

Risk phrases:
R35 Causes severe burns.

Safety phrases:
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.