

CURATOR ANTIQUING FLUID - BRONZE

PRODUCT DESCRIPTION

Antiquing Fluid – Bronze, is a cold patination treatment which will colour new or bright brass, copper, and bronze to give an antique look.

DIRECTIONS : Remove any metal lacquer using paint stripper first. Thoroughly remove and clean any grease or oil, including fingerprints with Curator Cold Patination Pre-Treatment, and wipe dry. Proper preparation of the surface is essential to produce a uniform colour. Dilute with 10 parts water and immerse items together to ensure a uniform colour change. For larger items apply Antiquing Fluid directly on to the item using either cotton wool or a brush and watch the surface quickly change colour. When the desired colour is achieved, immediately rinse with clean water and pat dry with paper towel. After treating with Antiquing Fluid, items can be sealed with a finishing wax, oil or appropriate lacquer.

IMPORTANT : Always test products first on a spare surface or inconspicuous area to check colour, compatibility and end result.

SECTION 1:

IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Curator Antiquing Fluid - Bronze
Composition / Ingredients: Orthophosphoric Acid 25-93%
CAS No. 7664-38-2
EC No: 231-633-2
Tariff No 28092000

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

Antique solution for Brass, Copper & Bronze Metal / Metal surface treatment
No uses advised against.

1.3 Details of the supplier of the safety data sheet

Company Name : Priory Polishes
Address: Unit 6,
Deanfield Drive,
Link 59 Business Park,
Clitheroe,
Lancashire.

BB7 1QJ

Tel: 01200 425443

Email: info@priorypolishes.co.uk

SECTION 2 : HAZARDS IDENTIFICATION

2.1 Classifications of the substance or mixture

Classification under CLP : Regulation (EC) No.1272/2008

Met. Corr.1 H290 May be corrosive to metals.
 Skin Corr. 1B H314 Causes severe skin burns and eye damage.
 Acute Tox. Oral. 4 H302 Harmful if swallowed

Labelling according to Regulation (EC) No 1272/2008

Symbol(s) C: Corrosive
 R-phrase(s) R34 – Causes burns

2.2 Label elements



Signal Word : **DANGER**

Hazard Statements

H290 May be corrosive to metals.
 H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.

Precautionary Statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 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.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

2.3 Other hazards

PBT and vPvB : Not applicable

SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Orthophosphoric Acid 25 – 93%
 CAS No : 7664-38-2
 EC number ; 231-633-2
 Index No : 015-011-00-6
 SVHC : None
 REACH Registration No : 01-2119485924-24-0005

SECTION 4 : FIRST AID MEASURES

4.1 Description of first aid measures

General information ;

Do not leave affected persons unattended. Personal protection for the First Aider. Involve doctor immediately.

Immediately remove any clothing soiled by the product. In case of irregular breathing or respiratory arrest provide

artificial respiration. Provide oxygen treatment if affected person has difficulty breathing.

After Inhalation: Take affected persons into fresh air and keep quiet. Supply fresh air. Call a doctor immediately.

After Skin Contact: Immediately wash with water and soap and rinse thoroughly. Call a doctor immediately.

After Eye Contact: Rinse opened eye for several minutes under running water. Call a doctor immediately.

After Swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately. NOTE:

Never give an unconscious person anything to drink.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe skin burns and eye damage. Gastric and intestinal disorders.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician : Treat symptomatically. Medical supervision for at least 48 hours.

SECTION 5 : FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

This product is not flammable. Use fire extinguishing methods suitable to surrounding conditions. CO₂, powder or water spray. Fight large fires with water spray or alcohol resistant foam. **For safety**

reasons unsuitable extinguishing agents : Water with full jet.

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released : Phosphorus oxides (e.g. P₂O₅)

5.3 Advice for fire-fighters

Wear self contained respiratory protection. Wear fully protective suit.

Additional Information : Cool endangered receptacles with water spray. Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Mount respiratory protective device. **6.2**

Environmental precautions

Dilute with plenty of water. Do not allow to enter sewers / surface or ground

water. **6.3 Methods and material for containment and cleaning up**

Absorb with liquid binding material. Use neutralising agent. Dispose contaminated materials as waste according to item 13. Ensure adequate ventilation.

6.4 Reference to other sections

Reference to other sections : Refer to section 8 and 13

SECTION 7 : HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep receptacles tightly sealed. Ensure good ventilation / exhaustion at the workplace. When diluting always pour product into water and not vice versa

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Store only in the original receptacle. Use polyolefine receptacles. Provide acid-resistant floor. Suitable material for receptacles and pipes: Stainless steel.

Information about storage in one common storage facility:

Store away from reducing agents. Store away from metals. Do not store together with alkalis (caustic solutions)

Further information about storage conditions: Keep container tightly sealed

Recommended storage temperature:

Phosphoric acid, solu on 93%: +35 - +42°C

85%: +28 - +42°C

80%: +15 - +42°C

<75%: no need in heating

(For other acid concentrations please use interpolation)

7.3 Specific end use(s)

Metal Finishing

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

7664-38-2 Orthophosphoric Acid

OELV (EU) Short-term value: 2 mg/m³

Long-term value: 1 mg/m³

PEL (USA) 1 mg/m³

REL (USA) Short-term value: 3mg/m³

Long-term value: 1 mg/m³

TLV (USA) TLV (USA)

AGW (Germany) Short-term value: 3 mg/m³

Long-term value: 1 mg/m³

Long-term value: 2 E mg/m³

2(I);DFG, EU, AGS, Y

DNELs

For workers:

Long-term-local effects (inhala on) DNEL: 1 mg/m³

Acute local effects (inhala on) DNEL: 2 mg/m³

Long-term-systemic effects (inhala on) DNEL: 10.7 mg/m³

For general popula on:

Long-term-local effects (inhala on) DNEL: 0.36 mg/m³

Long-term-systemic effects (oral) DNEL: 4.57 mg/kg bw/day

PNECs

Not applicable

Phosphoric acid toxicity is related to its acidic nature. A generic PNEC (water) cannot be derived as the effects are highly depending on the pH of the receiving water and its buffer capacity highly variable.

8.2 Exposure controls

General Protective & Hygiene Measures : The usual precautionary measures are to be adhered to when handling chemicals. Do not eat or drink while working. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

Respiratory protection:

Use suitable respiratory protective device only when aerosol or mist is formed. In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Short term filter device: ABEK+P Filter A/P2 (EN 14387, EN 143)

Protection of hands: Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves

Butyl rubber, BR (0.7 mm)
 Nitrile rubber, NBR (0.4 mm)
 Chloroprene rubber, CR (0.5 mm)
 Fluorocarbon rubber (Viton) (0.4 mm)
 Natural rubber, NR (0.5 mm)
 Neoprene gloves (0.5 mm)

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. (EN 374)

Not suitable are gloves made of the following materials: Leather gloves

Eye protection: Tightly sealed goggles (EN 166)

Body protection:

Acid resistant protective clothing. Boots

Limitation and supervision of exposure into the environment

Avoid discharging of phosphoric acid solutions into municipal wastewater, surface water or soils, when such discharges are expected to cause significant pH changes.

Risk management measures

Regular control of the pH value previous to or during discharges into open waters is required. Discharges should be carried out as to minimize pH changes in receiving surface waters. In general most aquatic organisms can tolerate pH values in the range of 6-9.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Form: Solu on

Colour: Colourless

Odour: Odourless

Odour threshold: Not applicable

pH-value (23 g/l) at 20°C: <1

Change in condi on

Mel ng point/Mel ng range: -18 + 27°C (75-93% EC A.1)

Boiling point/Boiling range: 108 - 171°C (50-93%, 1013 hPa)

Flash point: Not applicable.

This product is inorganic substance.

Flammability (solid, gaseous): Product is not flammable. (based on molecular structure)

Igni on temperature: Not applicable

Decomposi on temperature: >200°C Thermal decomposi on on losing water.

Self-igni ng: Product is not self igni ng. (based on molecular structure)

Danger of explosion: Product does not present an explosion hazard. (based on molecular structure)
 Explosion limits: None
 Oxidizing proper es None. The substance does not contain any groups associated with oxidising proper es.
 Vapour pressure at 20°C: 4 Pa
 Rela ve density at 20°C 1.574-1.791 (75-93%, EC A.3)
 Vapour density 3.4 (air=1)
 Evapora on rate Not determined.
 Solubility in / Miscibility with water at 20°C: >1000 g/l
 Segrega on coefficient (n-octanol/water): Not applicable. This substance is inorganic chemical.
 Viscosity at 20°C: 1.1 - 600 mPa.s (5% - 105%)

9.2 Other Information

Other Information : No further relevant information available.

SECTION 10 : STABILITY AND REACTIVITY

10.1 Reactivity

Corrosive action on metals.
 Reacts with reducing agents.
 Reacts with alkali (lyes).
 Ammonia (NH₃), fluorine, sulphur trioxide (SO₃), phosphorus pentoxide (P₂O₅).

10.2 Chemical stability

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Reacts with metals forming hydrogen.
 Reacts with alkali (lyes).

10.4 Conditions to avoid

To avoid thermal decomposition do not overheat.

10.5 Incompatible materials:

Alkalis
 Metals

10.6 Hazardous decomposition products:

Phosphorus oxides (e.g. P₂O₅)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

LD/LC₅₀ values relevant for classification:

Oral LD₅₀ 2600 mg/kg (rat) (equivalent to OECD 423)

Specific symptoms in biological assay:

Phosphoric acid is classified as corrosive to the skin, therefore, no need to perform an acute dermal and an acute inhalative toxicity tests.

Primary irritant effect:

Skin corrosion/irritation:

Causes severe skin burns and eye damage.

Serious eye damage/irritation:

Causes severe skin burns and eye damage.

Respiratory or skin sensitisation

No sensitising effects known.

Phosphoric acid is classified as skin corrosive, thus a further assessment for sensitisation is not necessary.

Additional toxicological information:

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

Toxicokinetics, metabolism and distribution

This substance is not considered to have bioaccumulative potential as it is highly soluble in water and phosphate

levels in the body are regulated via homeostasis.

For risk assessment purposes oral absorption is considered to be 50-100%, inhalation absorption 100% and dermal

absorption 50-100%.

Wide distribution throughout the body is to be expected and excretion will be predominantly via urine.

Supporting

studies show increased phosphorus retention in bone and increased urinary phosphorus excretion after a prolonged

dietary administration of phosphoric acid and support the initial toxicokinetic assessment.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction) Germ cell mutagenicity

None. (according to OECD 471, OECD 473, OECD 476 test(s))

Carcinogenicity:

No data available (no carcinogenicity study needs to be performed as this substance is not genotoxic)

Toxicity for reproduction:

No classification is necessary.

Reproductive toxicity: NOAEL \geq 500 mg/kg bw/day ; rat; oral (OECD 422) developmental toxicity:

NOAEL \geq 410 mg/kg

bw/day ; rat; oral

Maternal toxicity: NOAEL \geq 410 mg/kg bw/day ; rat; oral (equivalent to OECD 414)

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

7664-38-2 Orthophosphoric acid

Oral NOAEL 250 mg/kg bw/day (rat) (OECD 422 (sub chronic)) should not be classified for STOT - repeated exposure

Aspirational hazard

Based on available data, the classification criteria are not met.

SECTION 12 : ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:

Phosphoric acid toxicity is related to its acidic nature and, therefore, is more related to concentration than to dose.

EC₅₀/48 h (static) >100 mg/L (Daphnia magna) (OECD 202, freshwater)

EC₅₀/72 h (static) >100 mg/L (algae) (OECD 201, freshwater)

median lethal pH 96h : 3-3.25 (Bluegill fish) fish mortality is caused by low pH values

12.2 Persistence and degradability

The substance is inorganic; therefore no biodegradation tests are applicable.

Phosphoric acid dissociates in water into H₃O⁺, H₂PO₄⁻, HPO₄⁻ - ions, which cannot be further degraded.

Other information:

The product should not get in high quantities into waste water because it may act as a plant nutrient and cause eutrophication.

12.3 Bio accumulative potential

Does not accumulate in organisms. This substance is highly water soluble and dissociating.

Phosphoric acid dissociates in water into H₃O⁺, H₂PO₄⁻, HPO₄⁻ - ions, which are ubiquitous in the environment. Phosphoric acid is absorbed in form of phosphate anions. This anion is an essential component of the body.

12.4 Mobility in soil

This substance is highly water soluble and dissociating. When spilled onto soil, phosphoric acid will infiltrate downward and will be partially neutralized by dissolving some of the soil material. On reaching the ground table phosphoric acid will be dispersed and diluted. Therefore, the environmental assessment should be limited to the aquatic compartment.

Behaviour in sewage processing plants:

Phosphoric acid is of low toxicity to microorganisms, since in sewage treatment plants the microorganisms are essentially exposed to mainly H₂PO₄⁻ and HPO₄⁻ - ions, which are an essential nutrient for them, and not to parent phosphoric acid or to low pH values.

12.5 Results of PBT and vPvB assessment

PBT: No assessment is required for inorganic substances.

vPvB: No assessment is required for inorganic substances.

12.6 Other adverse effects

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Rinse off bigger amounts into drains or the aquatic environment may lead to decreased pH values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

SECTION 13 : DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

European waste catalogue 06 01 04 phosphoric and phosphorous acid

Uncleaned packaging:

Recommendation:

Empty contaminated packaging thoroughly. They may be recycled after thorough and proper cleaning.

Packaging that may not be cleansed are to be disposed of in the same manner as the product. Disposal must be made in accordance with Local Authority requirements

Recommended cleansing agents: Water, if necessary together with cleansing agents

SECTION 14 : TRANSPORT INFORMATION

DOT Regulations



Hazard class: 8
 Identification number: UN1805
 Packing group: III
 Proper shipping name (technical name): PHOSPHORIC ACID, SOLUTION
 Label: 8

Land Transport ADR/RID (cross-border):



ADR/RID class: 8 (CI) Corrosive substances
 Danger code (Kemler): 80
 UN Number: 1805
 Packaging group: III
 Hazard label: 8
 Description of goods: 1805 PHOSPHORIC ACID, SOLUTION

Maritime transport IMDG:



IMDG class: 8
 UN Number: 1805
 Label: 8
 Packaging group: III
 EMS Number: F-A, S-B
 Maritime pollutant: No
 Proper shipping name: PHOSPHORIC ACID, SOLUTION

Air transport:



ICAO-TI and IATA-DGR:
 ICAO/IATA Class: 8
 UN/ID Number: 1805
 Label: 8
 Packaging group: III
 Proper shipping name: PHOSPHORIC ACID, SOLUTION
 UN 'Model Regulation': UN1805, PHOSPHORIC ACID, SOLUTION, 8, III

14.1 UN Number : UN1805
 14.2 UN Proper Shipping Name : Phosphoric Acid Solution
 14.3 Transport Hazard Class(es) : 8
 14.4 Packing Group : III

ADR

Tunnel restrict on code E
 UN "Model Regulation": UN1805, PHOSPHORIC ACID, SOLUTION, 8, III

SECTION 15 : REGULATORY INFORMATION

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

The regulatory information given above only indicates their principal regulations specifically applicable to the product described in the safety data sheet. The users attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

15.2 Chemical Safety Assessment

Directive 2000/60 EC (phosphates)
 Labelling according to Regulation (EC) No 1272/2008
 The substance is classified and labelled according to the CLP regulation.
 National regulations:
 Control of Explosive Precursors and Poisons Regulations 2023: This product is classified as a regulated precursor.
 Information about limitations of use: Employment restrictions concerning juveniles must be observed.
 Other regulations, limitations and prohibitive regulations
 Substances of very high concern (SVHC) according to REACH, Article 57 None
 Registration status (Chemical Inventories listing) :
 United States (TSCA) : listed China (IECSC) : listed
 Canada (DSL) : listed
 Australia (AICS) : listed
 Japan (ENCS) : listed
 Korea (KECI) : listed
 Philippines (PICCS) : listed
 NTP (National Toxicology Program) : Substance is not listed
 IARC (International Agency for Research on Cancer): Substance is not listed

SECTION 16 : OTHER INFORMATION

Hazard statements:

H290 May be corrosive to metals.
 H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning

The International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations

Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC₅₀: Lethal concentration, 50 percent

LD₅₀: Lethal dose, 50 percent

NOAEL: No Observable Adverse Effect Level

STOT: Single Target Organ Toxicity

OECD: Organisation for Economic Co-operation and Development

RCR: Risk Characterisation on Ratio

PRE: Personal Respiratory Equipment

LEV: Local Exhaust Ventilation

Legal Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

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