

# SAFETY DATA SHEET

Revision: 2.1 Date: 30.09.2015


ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 453/2010

www.vishaypg.com

## 1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>1.1 Product identifier</b>	
Product Name	H Cement Thinner & PBX Thinner
Chemical Name	Mixture
CAS No.	Mixture
EINECS No.	Mixture
REACH Registration No.	None assigned.
<b>1.2 Recommended use of the chemical and restrictions on use</b>	
Identified Use(s)	PC14 Metal surface treatment products, including galvanic and electroplating products
Uses Advised Against	For professional users only.
<b>1.3 Supplier's details</b>	
Company Identification	VISHAY MEASUREMENTS GROUP, INC. Post Office Box 27777 Raleigh, NC 27611 USA
Telephone	919-365-3800
Fax	919-365-3945
E-Mail (competent person)	mm.us@vishaypg.com
<b>1.4 Emergency Phone No.</b>	1-800-424-9300 CHEMTREC

## 2. SECTION 2: HAZARDS IDENTIFICATION

<b>2.1 Classification of the substance or mixture</b>	
<b>2.1.1 GHS Classification</b>	Met. Corr. 1; H290 Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Dam. 1; H318 Acute Tox. 4; H332 Resp. Sens. 1; H334 STOT SE 3; H335 Muta. 1B; H340 Carc. 1A; H350 Repr. 2; H361f STOT RE 2; H373 Aquatic Chronic 2; H411
<b>2.2 Label elements</b>	
Product Name	H Cement Thinner
Hazard Pictogram(s)	
Signal Word(s)	Danger
Contains:	Phosphoric acid and Chromium (VI) trioxide
Hazard Statement(s)	H290: May be corrosive to metals. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage.

# SAFETY DATA SHEET

Revision: 2.1 Date: 30.09.2015

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 453/2010

www.vishaypg.com

H332: Harmful if inhaled.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335: May cause respiratory irritation.  
H340: May cause genetic defects.  
H350: May cause cancer.  
H361f: Suspected of damaging fertility.  
H373: May cause damage to organs through prolonged or repeated exposure.  
H411: Toxic to aquatic life with long lasting effects.

## Precautionary Statement(s)

P201: Obtain special instructions before use.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P304+P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
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/doctor.

## Additional Information

None.

## 2.3 Other hazards

None.

### 3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

GHS Classification

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Phosphoric Acid	< 25	7664-38-2	231-633-2/ 616-646-7	None assigned	Met. Corr. 1; H290 Skin Corr. 1B; H314 (SCL: $\geq$ 25%)
Chromium (VI) Trioxide	< 5	1333-82-0	215-607-8	None assigned	Ox. Sol. 1; H271 Acute Tox. 3; H301 Acute Tox. 3; H311 Skin Corr. 1A; H314 Skin Sens. 1; H317 Acute Tox. 2; H330 Resp. Sens. 1; H334 STOT SE 3; H335 (SCL: $\geq$ 1%) Muta. 1B; H340 Carc. 1A; H350 Repr. 2; H361f STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Chromium (III) Hydroxide	< 2	1308-14-1	215-158-8	None assigned	Not classified

H271: May cause fire or explosion; strong oxidiser. H290: May be corrosive to metals. H301: Toxic if swallowed. H311: Toxic in contact with skin. H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction. H330: Fatal if inhaled. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335: May cause respiratory irritation. H340: May cause genetic defects. H350: May cause cancer. H361f: Suspected of damaging fertility. H372: Causes damage to organs through prolonged or repeated exposure. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long lasting effects. SCL: Specific Concentration Limit.

### 4. SECTION 4: FIRST AID MEASURES



# SAFETY DATA SHEET

Revision: 2.1 Date: 30.09.2015

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 453/2010

www.vishaypg.com

## 4.1 Description of first aid measures

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. IF exposed or concerned: Get medical advice/attention. If unconscious, place in recovery position and get medical attention immediately. Do not employ mouth-to-mouth method.

Skin Contact

IF ON SKIN: Remove contaminated clothing and wash all affected areas with plenty of water. Contaminated clothing should be thoroughly cleaned. If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if eye irritation develops or persists. Obtain prompt consultation, preferably from an ophthalmologist.

Ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Drink two glasses of water. Do not induce vomiting. Allow the patient to drink 5 - 10 g ascorbic acid (not effervescent tablets) dissolved in water. This dose can be repeated several times. Obtain medical attention.

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

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause genetic defects. May cause cancer. Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure.

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

Chemical eye burns may require extended irrigation.

Ingestion: Get medical attention immediately. Allow the patient to drink 5 - 10 g ascorbic acid (not effervescent tablets) dissolved in water. This dose can be repeated several times.

Skin Contact: If the skin becomes scratched or wounded, dab it with saturated gauze pads or compresses using a freshly made up ascorbic acid solution (10 g in 100 g water).

## 5. SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Suitable Extinguishing media

As appropriate for surrounding fire. Extinguish preferably with foam, carbon dioxide or dry chemical.

Unsuitable extinguishing media

Do not use water jet. Direct water jet may spread the fire.

### 5.2 Special hazards arising from the substance or mixture

May decompose in a fire giving off toxic fumes. May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide, metal oxides/oxides and Oxides of phosphorus.

### 5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

## 6. SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid all contact. Use personal protective equipment as required. See Section: 8. Avoid breathing vapours.

### 6.2 Environmental precautions

Avoid release to the environment. Do NOT wash away into sewer. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

### 6.3 Methods and material for containment and cleaning up

Absorb spillages onto sand, earth or any suitable adsorbent material. Neutralize with: slaked lime (calcium hydroxide), sodium carbonate, calcium carbonate or sodium bicarbonate. Use only non-sparking tools. Transfer to a container for

# SAFETY DATA SHEET

Revision: 2.1 Date: 30.09.2015

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 453/2010

www.vishaypg.com

## 6.4 Reference to other sections

disposal. Dispose of this material and its container as hazardous waste.  
See Section: 8, 13

## 7. SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Ensure adequate ventilation. Avoid all contact. Do not breathe vapour. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

### 7.2 Conditions for safe storage, including any incompatibilities

Storage temperature  
Storage life  
Incompatible materials

Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, sources of ignition and direct sunlight.  
Ambient. 5 - 25°C  
Stable under normal conditions.  
Keep away from: Combustible materials, Alkalis, Reducing agents, Strong oxidising agents, Acids and metals. Keep away from water.

Reacts violently with strong alkalis. Direct contact with alkalis may produce hydrogen gas. Hydrogen gas is released in contact with most metals.  
Exothermic reaction with water. May be corrosive to metals.

### 7.3 Specific end use(s)

Suitable containers:

Keep only in original container.  
PC14 Metal surface treatment products, including galvanic and electroplating products. See Section: 1.2.

## 8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### 8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Phosphoric Acid	7664-38-2	-	1	-	3*	NIOSH
Phosphoric Acid	7664-38-2	-	1	-	-	OSHA

Note: OSHA 1910.1000 TABLE Z-1 / \*NIOSH 15 minutes average value

#### 8.1.2 Biological limit value

Not established.

#### 8.1.3 PNECs and DNELs

Not established.

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Ensure adequate ventilation or use appropriate containment. Atmospheric levels should be controlled in compliance with the occupational exposure limit.  
Eyewash bottles containing clean water or saline solution. Wash thoroughly after handling.

#### 8.2.2 Individual protection measures, such as personal protective equipment (PPE)

General hygiene measures for the handling of chemicals are applicable. Avoid all contact. Do not breathe vapour. Wash hands before breaks and after work. Keep work clothes separately. Contaminated clothing should be thoroughly cleaned. Do not eat, drink or smoke at the work place.

Eye/ face protection



Skin protection

Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).

Hand protection: Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.

# SAFETY DATA SHEET

Revision: 2.1 Date: 30.09.2015

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 453/2010

www.vishaypg.com



Respiratory protection

Body protection: Chemical protection suit, boots and plastic gloves.



Thermal hazards

Do not use in areas without adequate ventilation. In case of inadequate ventilation wear respiratory protection. A suitable mask with filter type P may be appropriate.

## 8.2.3 Environmental Exposure Controls

Not applicable.  
Avoid release to the environment.

## 9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Yellow-Red Liquid
Odour	No odour
Odour threshold	Not available.
pH	Not established.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	104 °C (Mixture)
Flash point	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Non-flammable.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	23.7 mmHg @ 20°C
Vapour density	0.7 (Air = 1)
Relative density	1.28 (Water=1)
Solubility(ies)	Miscible
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive
Oxidising properties	Not oxidising.

### 9.2 Other information

None known.

## 10. SECTION 10: STABILITY AND REACTIVITY

10.1	Stability and reactivity	May be corrosive to metals.
10.2	Chemical stability	Stable under normal conditions.
10.3	Possibility of hazardous reactions	Reacts violently with strong alkalis. Direct contact with alkalis may produce hydrogen gas. Hydrogen gas is released in contact with most metals. Exothermic reaction with water. At high temperature formation of phosphorous oxides.
10.4	Conditions to avoid	Keep away from water.
10.5	Incompatible materials	Keep away from: Combustible materials, Alkalis, Reducing agents, Strong oxidising agents, Acids and metals.
10.6	Hazardous decomposition product(s)	May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide, and possibly chromium. Thermal decomposition may yield phosphoric oxide.

## 11. SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects (Substances in preparations / mixtures)

#### Acute toxicity

Ingestion

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

# SAFETY DATA SHEET

Revision: 2.1 Date: 30.09.2015

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 453/2010

www.vishaypg.com

Inhalation	Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day. Acute Tox. 4: Harmful if inhaled.
Skin Contact	Acute Toxicity Estimate Mixture Calculation: Estimated LC50 10 mg/l. Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
<b>Skin corrosion/irritation</b>	Skin Irrit. 2; Causes skin irritation.
<b>Serious eye damage/irritation</b>	Eye Dam. 1: Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	Skin Sens. 1: May cause an allergic skin reaction. Resp. Sens. 1: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>Germ cell mutagenicity</b>	Muta. 1B: May cause genetic defects.
<b>Carcinogenicity</b>	Carc. 1A: May cause cancer.
<b>Reproductive toxicity</b>	Repr. 2: Suspected of damaging fertility.
<b>STOT - single exposure</b>	STOT SE 3: May cause respiratory irritation.
<b>STOT - repeated exposure</b>	STOT RE 2: May cause damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	Based upon the available data, the classification criteria are not met.
11.2 <b>Other information</b>	None.

## 12. SECTION 12: ECOLOGICAL INFORMATION

12.1 <b>Toxicity</b>	Aquatic Chronic 2: Toxic to aquatic life with long lasting effects. Estimated Mixture LC50 > 1 ≤ 10 mg/l (Fish)
12.2 <b>Persistence and degradability</b>	The methods for determining the biological degradability are not applicable to inorganic substances.
12.3 <b>Bioaccumulative potential</b>	No data for the mixture as a whole.
12.4 <b>Mobility in soil</b>	The product is predicted to have moderate mobility in soil.
12.5 <b>Results of PBT and vPvB assessment</b>	Not classified as PBT or vPvB.
12.6 <b>Other adverse effects</b>	None known.

## 13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 <b>Waste treatment methods</b>	Do not release undiluted and unneutralised to the sewer. Dispose of this material and its container as hazardous waste. Containers must be decontaminated in accordance with all applicable regulations.
13.2 <b>Additional Information</b>	Dispose of contents in accordance with local, state or national legislation.

## 14. SECTION 14: TRANSPORT INFORMATION

	<b>ADR/RID / IMDG / IATA</b>
14.1 <b>UN number</b>	UN 1760
14.2 <b>Proper Shipping Name</b>	CORROSIVE LIQUID N.O.S
14.3 <b>Transport hazard class(es)</b>	8
14.4 <b>Packing group</b>	III
14.5 <b>Environmental hazards</b>	Classified as a Marine Pollutant/ Environmentally hazardous substance
14.6 <b>Special precautions for user</b>	See Section: 2
14.7 <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
14.8 <b>Additional Information</b>	None.

## 15. SECTION 15: REGULATORY INFORMATION

15.1 <b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
15.1.1 <b>National regulations</b>	

# SAFETY DATA SHEET

Revision: 2.1 Date: 30.09.2015

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 453/2010

www.vishaypg.com

USA	NTP Report on Carcinogens list: Chromium (VI) trioxide (CAS# 1333-82-0): Chromium hexavalent compound - Known to be a human carcinogen. OSHA regulated: Not listed Chromium (VI) trioxide (CAS# 1333-82-0): Group 1 – Carcinogenic to humans.
<b>15.1.2 IARC Monographs</b>	
<b>15.1.3 European regulations</b>	
Authorisations and/or Restrictions On Use	For professional users only. CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction). See also European Union Directive 2004/37/EC.
SVHCs	Chromium (VI) trioxide (CAS# 1333-82-0).
Wassergefährdungsklasse (Germany)	Water hazard class: 3
<b>15.2 Chemical Safety Assessment</b>	Not available.

## 16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

**References:** Existing Safety Data Sheet (SDS), Harmonised Classification(s) for Phosphoric Acid (CAS# 7664-38-2) and Chromium (VI) trioxide (CAS# 1333-82-0), Existing ECHA registration(s) for Phosphoric Acid (CAS# 7664-38-2), Aluminum Oxide (CAS# 1344-28-1) and Chromium (VI) trioxide (CAS# 1333-82-0), and the Classification and Labelling Inventory for Silicon Dioxide (CAS# 14808-60-7) and Chromium (III) Hydroxide (CAS# 1308-14-1).

GHS Classification of the substance or mixture	Classification Procedure
Met. Corr. 1; H290	Estimated Physico-chemical properties of substance
Skin Irrit. 2; H315	Threshold Calculation
Skin Sens. 1; H317	Threshold Calculation
Eye Dam. 1; H318	Threshold Calculation
Acute Tox. 4; H332	Acute Toxicity Estimate Mixture Calculation
Resp. Sens. 1; H334	Threshold Calculation
STOT SE 3; H335	Threshold Calculation (SCL)
Muta. 1B; H340	Threshold Calculation
Carc. 1A; H350	Threshold Calculation
Repr. 2; H361f	Threshold Calculation
STOT RE 1; H372	Threshold Calculation
Aquatic Chronic 2; H411	Summation Calculation

### LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
PBT	PBT: Persistent, Bioaccumulative and Toxic
vPvB	very Persistent and very Bioaccumulative
NTP	National Toxicology Program
IARC	International Agency for Research on Cancer
OSHA	The Occupational Safety & Health Administration
NIOSH	National Institute for Occupational Safety and Health

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

### Disclaimers

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Vishay Precision Group gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Vishay Precision Group accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.

### Annex to the extended Safety Data Sheet (eSDS)

# SAFETY DATA SHEET

Revision: 2.1 Date: 30.09.2015



ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 453/2010

---

[www.vishaypg.com](http://www.vishaypg.com)

No information available.





## Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at [vpgsensors.com](http://vpgsensors.com).

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.