

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

- **1.1 Product identifier:** Flux
- **Trade name:** Carr's Red Flux
- **Article number:** C1020 (50ml), C1021 (250ml)
- **1.2 Relevant identified uses of the substance or mixture and uses advised against** Soldering Flux
- **Application of the substance / the mixture**
Soldering
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier:**
Phoenix Precision Paints Limited
13 Orwell Court,
Wickford,
Essex SS11 8YJ
Tel +44 (0)1268 730549
EMAIL: sales@phoenix-paints.co.uk
- **Further information obtainable from:** sales@phoenix-paints.co.uk
- **1.4 Emergency telephone number:** +44 (0)1268 730549 (Business hours)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Skin corrosion/irritation Cat 1
Serious eye damage/eye irritation Cat 1
Specific target organ tox, single exp. Cat 3 (resp irrit)



GHS07

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS05, GHS07
- **Signal word:** Danger

- **Hazard-determining components of labelling:**

HYDROBROMIC ACID

- **Hazard statements**

Harmful if swallowed

Causes severe skin burns and eye damage

- **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapours/spray

Do not get in eyes, on skin, or on clothing

Wash thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Immediately call a POISON CENTER or doctor/physician

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

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IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Remove person to fresh air and keep at rest in a position comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do –
continue rinsing
Store locked up

• **2.3 Other hazards**
None

SECTION 3: Composition / Information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

CAS: 10035-10-6 EEC No. 233-113-0	HYDROBROMIC ACID Met. Corr. 1 (H290), Skin Corr. 1B (H314), Eye Dam. 1 (H318), STOT SE 3 (H335)	5 - 10%
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

- **General information:** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
- **After inhalation:** If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.
- **After skin contact:** Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Call a physician immediately.
- **After eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
- **After swallowing:** Do not induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation
- **Symptoms/injuries after inhalation:** Coughing. Dry/sore throat. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. FOLLOWING SYMPTOMS MAY APPEAR LATER: Respiratory difficulties. Risk of lung edema.
 - **Symptoms/injuries after skin contact:** Caustic burns/corrosion of the skin.
 - **Symptoms/injuries after eye contact:** Corrosion of the eye tissue.
 - **Symptoms/injuries after ingestion:** Burns to the gastric/intestinal mucosa. Nausea. Abdominal pain. Blood in vomit. AFTER ABSORPTION OF LARGE QUANTITIES: Shock.
 - **Chronic symptoms:** SYMPTOMS OF OVEREXPOSURE: Pulmonary edema, abdominal pain, vomiting, eye damage and skin burn.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically

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SECTION 5: Fire Fighting Measures

5.1 Extinguishing media

- **Suitable extinguishing agents:** CO 2, dry chemical, dry sand, alcohol-resistant foam.
- **Unsuitable extinguishing media:** No unsuitable extinguishing media known.

5.2 Special hazards arising from the substance or mixture

• **Fire hazard:** DIRECT FIRE HAZARD. Non combustible. INDIRECT FIRE HAZARD. Reactions involving a fire hazard: see "Reactivity Hazard".

• **Explosion hazard:** Will release small amounts of hydrogen, carbon based full or partial decomposed gases.

• **Reactivity:** Reacts exothermically with water (moisture). Decomposes on exposure to temperature rise: release of toxic and corrosive gases/vapours (phosphorus oxides). Reacts on exposure to temperature rise with (some) metals: release of highly flammable gases/vapours (hydrogen). Violent exothermic reaction with (some) bases. Violent to explosive reaction with many compounds e.g.: with (strong) oxidizers and with (strong) reducers.

5.3 Advice for firefighters

- **Precautionary measures fire:** Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.
- **Firefighting instructions:** Do not direct a solid stream into a burning pool, because this may cause frothing.
- **Protection during firefighting:** Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- **Protective equipment:** Gloves. Face-shield. Corrosion-proof suit. Dust cloud production: compressed air/oxygen apparatus. See "Material-Handling" to select protective clothing.
- **Emergency procedures:** Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes. Large spills/in confined spaces: consider evacuation. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.
- **Measures in case of dust release:** In case of dust production: keep upwind. In case of dust production: consider evacuation. Dust production: have neighbourhood close doors and windows.

6.1.2. For emergency responders

- **Protective equipment:** Equip cleanup crew with proper protection.
- **Emergency procedures:** Ventilate area.

6.2 Environmental precautions:

Should not be released into the environment.

6.3 Methods and material for containment and cleaning up:

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See Section 8: Exposure controls and personal protection.

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SECTION 7: Handling and Storage

7.1 Precautions for safe handling:

• **Precautions for safe handling:** Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Hygiene measures: Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

7.2 Conditions for safe storage, including any incompatibilities

- **Technical measures:** Comply with applicable regulations.
- **Storage conditions:** Keep only in the original container in a cool, well ventilated place away from incompatible materials. Keep container closed when not in use.
- **Incompatible products:** Strong bases. Strong acids. metals.
- **Incompatible materials:** Sources of ignition. Direct sunlight.
- **Storage temperature:** > 20 °C
- **Heat-ignition:** KEEP SUBSTANCE AWAY FROM: heat sources.
- **Prohibitions on mixed storage:** KEEP SUBSTANCE AWAY FROM: reducing agents. (strong) bases. metals. many substances.
- **Storage area:** Ventilation at floor level. Keep locked up. Unauthorized persons are not admitted. Meet the legal requirements.
- **Special rules on packaging:** SPECIAL REQUIREMENTS: closing. corrosion-proof. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
- **Packaging materials:** SUITABLE MATERIAL: stainless steel. polyethylene. glass. MATERIAL TO AVOID: steel. aluminium. iron.

SECTION 8: Exposure Controls / Personal Protection

• **Additional information about design of technical facilities:** No further data; see item 7.

• 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

Exposure limits:EH40/2005 Containing the workplace exposure limits (WELs) for use with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended). Updated by September 2006 official press release and October 2007 Supplement.

10035-10-6 hydrobromic acid

WEL	STEL: 3 ppm 15 min STEL: 10 mg/m ³ 15 min
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Derived No Effect Level (DNEL) No information available

• **Additional information:** The lists valid during the making were used as basis.

Biological limit values: This product, as supplied, does not contain any hazardous materials with biological limits established by regulatory bodies.

• 8.2 Exposure controls

• Personal protective equipment:

• General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the skin.
Avoid contact with the eyes and skin.

• Respiratory protection:

Dust production: an ABEK respirator to EN141 and EN405 is normally sufficient. If in doubt, consult a respirator manufacturer and show this safety data sheet.

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• **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

• **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.

• **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and Chemical Properties

• **9.1 Information on basic physical and chemical properties**

• **General Information**

• **Appearance:**

Form: Liquid

Colour: Red

• **Odour:** Distinct

• **Odour threshold:** Not determined.

• **pH-value:** < <1

• **Change in condition**

Melting point/Melting range: -11°C

Boiling point/Boiling range: 126 - 128 °C

• **Flash point:** Not applicable.

• **Flammability (solid, gaseous):** Not applicable.

• **Ignition temperature:** Not applicable.

• **Decomposition temperature:** Not determined.

• **Self-igniting:** Product is not selfigniting.

• **Danger of explosion:** Heating may cause an explosion.

• **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

• **Vapour pressure at 20 °C:** Not determined.

• **Density at 20 °C:** Not determined.

• **Relative density** Not determined.

• **Vapour density** Not determined.

• **Evaporation rate** Not determined.

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• Solubility in / Miscibility with water:	Complete
• Partition coefficient (n-octanol/water):	Not determined.
• Viscosity:	
Dynamic at 20 °C:	Not determined
Kinematic:	Not determined.
• Solvent content:	
Organic solvents:	Not determined
Solids content:	0.00%
• 9.2 Other information	No further relevant information available.

SECTION 10: Stability and Reactivity

- **10.1 Reactivity:** None known, based on information available.
- **10.2 Chemical stability:** Light sensitive, Air sensitive.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions:** No dangerous reactions known.
- **10.4 Conditions to avoid:** Incompatible products. Excess heat. Exposure to air. Exposure to light.
- **10.5 Incompatible materials:** Strong oxidizing agents. Metals.
- **10.6 Hazardous decomposition products:** Halogenated compounds. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11: Toxicological Information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

• **LD/LC50 values relevant for classification:**

7664-38-2 phosphoric acid

Inhalation	LC50	2858 ppm (Rat) 1 h
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Primary irritant effect:

- **Skin corrosion/irritation:** Causes severe skin burns and eye damage.
- **Serious eye damage/irritation:** Causes serious eye damage.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Category 3 - Respiratory system.
- **STOT-repeated exposure:** Not classified
- **Aspiration hazard:** Not classified
- **Symptoms / effects, both acute and delayed:** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

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SECTION 12: Ecological Information

• **12.1 Toxicity**
Ecotoxicity effects

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Hydrobromic acid	LC50 = 65.04 mg/L 96h	EC50 = 19 mg/L 48h	EC50 = 130 mg/L 72h	

- **12.2 Persistence and degradability** Soluble in water, Persistence is unlikely, based on information available.
 - **12.3 Bioaccumulative potential** Bioaccumulation is unlikely
 - **12.4 Mobility in soil** The product is water soluble, and may spread in water systems . Will likely be mobile in the environment due to its water solubility. Highly mobile in soils
 - **12.5 Results of PBT and vPvB assessment**
 - **PBT:** No data available for assessment.
 - **vPvB:** No data available for assessment.
 - **12.6 Other adverse effects**
- Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors
Persistent Organic Pollutant This product does not contain any known or suspected substance
Ozone Depletion Potential This product does not contain any known or suspected substance

SECTION 13: Disposal Considerations

- **13.1 Waste treatment methods**
- **Waste from Residues / Unused Products:** Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
- **Contaminated Packaging:** Dispose of this container to hazardous or special waste collection point.
- **European Waste Catalogue (EWC):** According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
- **Other Information:** Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not dispose of waste into sewer. Large amounts will affect pH and harm aquatic organisms. Solutions with low pH-value must be neutralized before discharge.

SECTION 14: Transport Information

• 14.1 UN-Number	
• ADR, IMDG, IATA	UN1788
• 14.2 UN proper shipping name	
• ADR	HYDROBROMIC ACID
• IMDG	HYDROBROMIC ACID
• IATA	HYDROBROMIC ACID

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- 14.3 Transport hazard class(es)
- ADR, IMDG, IATA



- | | |
|---------|------------------------|
| • Class | 8 Corrosive substances |
| • Label | 8 |

- 14.4 Packing group
- ADR, IMDG, IATA

II

- 14.5 Environmental hazards:
- Marine pollutant:

No hazards identified

- 14.6 Special precautions for user Warning:
- Danger code (Kemler):
- EMS Number:

No special precautions required

- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable, packaged goods

SECTION 15: Regulatory Information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 15.2 Chemical safety assessment:

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

SECTION 16: Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases.**

H290 - May be corrosive to metals
 H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 H335 - May cause respiratory irritation

- **Department issuing SDS:** Product safety department: LABORATORY
- **Contact:** Health & Safety Officer
- **Abbreviations and acronyms:**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text