

# SP380 IRON STAIN KIT

## MATERIAL SAFETY DATA SHEET

### 1 Identification of substance

#### SP380 Iron stain kit (Perl's reaction)

Produced and supplied by Gainland Chemical Co( GCC Diagnostics). Factory Rd. Sandycroft. Deeside. Flintshire. UK  
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### 2 Composition information

Hazardous components detailed  
Potassium ferrocyanide reagent - <2% potassium ferrocyanide in an aqueous solvent system  
Hydrochloric acid reagent - <2% HCl in an aqueous solution  
Counterstain

### 3 Hazards identification

H290 May be corrosive to metals H302  
Harmful if swallowed  
H312 Harmful in contact with skin H315  
Causes skin irritation  
H319 Causes serious eye irritation

Health: (May be) Harmful by ingestion and in contact with eyes Overall risk in normal use – very low.  
Environment: This reagent poses a no real risk in the environment in the quantities supplied.

### 4 First aid measures

- EYES - Discolouration from the dyes. May irritate.  
If in contact flood eyes with eye bath for 5-10 minutes, opening upper and lower eye-lids. Seek medical attention for all eye injuries from chemicals.
- SKIN - Discolouration from the dyes .  
If in contact with any part of the body, wash with plenty of soap and water . Alcohol will assist removal of any skin staining. If irritation or other symptoms persist, seek medical attention.
- INGESTION - Harmful if ingested. Swallowing these substances will discolour internal cells and may cause irritation .  
If ingested wash out mouth with running water and seek emergency medical advice on what treatment to give.
- INHALATION - Same as for ingestion..

### 5 Fire fighting

- Extinguishing Media - Any media.
- Special Hazards - de-oxygenation of the blood stream from ingestion/ inhalation of sufficient quantities.
- Further information - 0044 1244 53 63 26

### 6 Accidental release measures

Person-related safety precautions:  
Wear appropriate protective equipment, impervious gloves etc. skin and eye protection.

Measures for environmental protection:  
Do not allow deliberate release to the environment without proper government permits. In normal use there is no real risk to the environment.

### 7 Handling procedures

Handling

Information for safe handling:  
Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Keep out of direct sunlight.  
Keep away from strong acids and only use the weak reagent acid supplied with this kit.

Information about protection against explosions and fires: N/A.

## Storage

Requirements to be met by storerooms and containers: Unsuitable material for container: none.  
Store in cool location out of direct sunlight. Store in a locked cabinet or with access restricted to technical experts or their assistants. Will oxidise and degrade if exposed to strong sunlight and air, or air alone or alkaline materials.

Information about storage in one common storage facility:

Keep away from strong acids

## 8 Exposure control and personal protection

Additional information about design of technical systems:

Components with critical values that require monitoring at the workplace:

### Personal protective equipment

General protective and hygiene measures. The usual precautionary measures should be adhered to in handling any chemical product. Do not consume. Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Store protective clothing separately. Avoid contact with the eyes and skin.

Breathing equipment: Not essential. No hazardous vapour produced.

Protection of hands: Impervious gloves

Eye protection - Safety goggles or Full - Face protection .

Body protection: Protective work clothing .

## 9 Physical and chemical properties

Potassium ferrocyanide:

Appearance: Pale yellow colored liquid. Odor: None.

Physical state: Liquid.

pH: 7.70.

Vapor pressure: Not determined.

Vapor density: Not determined.

Boiling point: Not determined.

Freezing point: Not determined. Solubility in water:

Complete.

Specific gravity: 1.011

Hydrochloric acid reagent: Appearance:

Colorless liquid. Odor: Acrid.

Physical state: Liquid.

pH: 0.40.

Vapor pressure: Not determined. Vapor density:

Not determined. Boiling point: Not determined.

Freezing point: Not determined. Solubility in

water: Complete. Specific gravity: 1.0075

Counterstain:

Appearance: Red liquid. Odor: Mild odor.

Physical state: Liquid. pH: 2.4 - 2.7.

Vapor pressure: Not determined. Vapor density:

Not determined. Boiling point: Not determined.

Freezing point: Not determined. Solubility in

water: Complete. Specific gravity: Not determined.

## 10 Stability and reactivity

Stable.

Materials to be avoided: Strong acids

Dangerous reactions: There is a danger that free Cyanide ions (CN-) coming into contact with an acid such as the Hydrochloric acid reagent in this kit can form the **HIGHLY TOXIC GAS** – Hydrogen Cyanide

Dangerous products of decomposition: Carbon monoxide and carbon dioxide oxides of sulphur.

## 11 Toxicological information

## 12 Ecological information

No data available. Not regulated as hazardous.  
Considered Harmful / Toxic to simple aquatic organisms. Readily biodegrades.

## 13 Disposal considerations

Product:

Recommendation

Consult state, local or national regulations for proper disposal. Small quantities on a lab scale maybe disposed of to the public sewer diluting greatly with water.

Uncleaned packagings:

Recommendation: If still full dispose of through a waste disposal contractor if empty, rinse with water and dispose of as shown below.

Cleaned packaging : Recycled as Polyethylene (PE)

## 14 Transport information

Land transport ADR/RID and GGVs/GGVE (cross-border/domestic) Air  
Transport IATA. Sea Transport IMDG.

Correct Technical name : ( Not Restricted for transport.)

## 15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product: X Harmful

H290 May be corrosive to metals H302

Harmful if swallowed

H312 Harmful in contact with skin H315

Causes skin irritation

H319 Causes serious eye irritation

P262 Do not get in eyes ,on skin or on clothing

P302 + P350 IF ON SKIN gently wash with plenty of soap and water

P305 + P351 + P338 IF IN EYES rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P281 Use personal protective equipment as required

P309 + P311 If exposed or you feel unwell, call a poison centre or a doctor/physician

P32 + P311 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

P273 Avoid release to the environment



National regulations

Information about limitation of use: For use only by technically qualified individuals.  
Employment restrictions concerning young persons must be observed.

## 16 Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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