



KEY SCIENTIFIC PRODUCTS  
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## Safety Data sheet

### 1 Identification

#### GHS Product Identifier

**Catalog Number / Product Name: Multiple**  
K190 Ferric Chloride  
K980190 Dropit Ferric Chloride

#### Other means of identification

K190 Ferric Chloride  
K980190 Dropit Ferric Chloride

#### Recommended use of the chemical and restriction on use

For invitro diagnostic use only by trained professionals.

#### Supplier's details

##### Manufacturer / Supplier:

Key Scientific Products, Inc.  
1113 East Reynolds Street  
Stamford, TX 79553

Phone Number: 1-800-843-1539  
Emergency Phone Number: none available.

### 2 Hazard(s) identification

#### Classification of the substance or mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS)

Corrosive to metals (Category 1), H290

Acute toxicity, Oral (Category 4 ), H302

Skin corrosion (Category 1A), H314

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Acute aquatic toxicity (Category 3), H402

Chronic aquatic toxicity (Category 3), H412

#### GHS label elements

Danger



May be corrosive to metals

Causes severe skin burns and eye damage

Causes skin irritation

Causes serious eye damage

May cause respiratory irritation

Keep only in original container.

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

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove victim 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.

Immediately call a POISON CENTER or doctor/physician.

Call a POISON CENTER or doctor/physician if you feel unwell.

Specific treatment (see supplemental first aid instructions on this label).

If skin irritation occurs: Get medical advice/attention.

IF eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

Collect spillage.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Store in corrosive resistant/ lined container with a resistant inner liner.

Dispose of contents/container to an approved waste disposal plant.

### **Other hazards which do not result in classification**

None

## **3 Composition/information on ingredients**

<b>Description</b>	<b>CAS Number</b>	<b>EINECS Number</b>	<b>%</b>	<b>Note</b>
Hydrochloric acid	7647-01-0	231-595-7	4 - 4.45	
iron(III) chloride hexahydrate	10025-77-1		9 - 9.09	

## **4 First-aid measures**

### **Description of necessary first-aid measures**

#### **General advise**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Eyes:** In case of contact with eyes, rinse immediately with water for 10-15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin:** Take off contaminated clothing and shoes immediately. Wash thoroughly with soap and plenty of water. Consult a physician.

**Most important symptoms/effects, acute and delayed**

Most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

**Indication of immediate medical attention and special treatment needed, if necessary**

No data available.

**5 Fire-fighting measures**

**Suitable extinguishing media**

Use waterspray, CO2, foam, or dry powder as the extinguisher medium.

**Specific hazards arising from the chemical**

Hydrogen chloride gas, Iron.

**Special protective actions for fire-fighters**

Wear self-contained breathing apparatus if needed.

**6 Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, dust, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

**7 Handling and storage**

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid inhalation of vapor or mist. Provide adequate ventilation at places where dust is formed. Normal measures for fire protection. For precautions see section 2.2.

**Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well ventilated place.  
Recommended storage temperature - 30° C.

**8 Exposure controls/personal protection**

**Control parameters**

**Components with workplace control parameters**

Component	CAS#	Value	Control parameters	Basis
Hydrochloric acid	7647-01-0	C	2 ppm	ACGIH (US) Theshhole Limit Values (TLV)

	Remarks		Upper Respiratory Tract irritation Not classified as a human carcinogen	
		C	5 ppm 7 mg/m3	NIOSH (US) Recommended Exposure Limits
			Often used in aqueous solutions	
		C	5 ppm 7 mg/m3	Occupational Exposure Limits (OSHA) -Tab Z-1 Limits for Air Contaminants
			The value mg/m3 is approximate	

Component	CAS#	Value	Control parameters	Basis
Iron trichloride hexahydrate	10025-77-1	TWA	1 mg/m3	ACGIH (US) Theshhole Limit Values (TLV)
	Remarks		Upper Respiratory Tract irritation Skin irritation varies	
		TWA	1 mg/m3	NIOSH (US) Recommended Exposure Limits
		PEL	1 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of workday.

### Individual protection measures

#### Eye/face protection

Tightly fitting safety glasses with side shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or en 166 (EU).

#### Skin protection

Handle with gloves. Gloves must be inspected before use. Use proper glove removal technique (without touching gloves's outer surface) to avoid skin contact with product. Dispose of cantaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-space.

#### Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type P95 (US) or type P1 (EN 143) dust masks. Use respirators and componenents tested and approved under appropriate government standards such as NIOSH (US) or CEN (UN).

#### Control of environmental exposure

Do not let product enter drains.

## 9 Physical and chemical properties

### Physical and chemical properties

**Appearance:**

**Form:** liquid

<b>Odor:</b>	<b>Color:</b> light yellow pungent
<b>Odor Threshold:</b>	No data available
<b>pH:</b>	No data available
<b>Melting point/freezing point:</b>	Melting point/range: 37 °C (99 °F) -lit.
<b>Melting point:</b>	No data available
<b>Flash Point:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flammability:</b>	No data available
<b>Upper/lower flammability/explosion limits:</b>	No data available
<b>Vapor Pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative density:</b>	No data available
<b>Water solubility:</b>	No data available
<b>Partition coefficient (n-octal/water):</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temerature:</b>	No data available
<b>Viscosity:</b>	No data available
<b>Explosive Properties:</b>	No data available

## 10 Stability and reactivity

### Reactivity

Corrosive in contact with metals.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

No data available.

### Conditions to avoid

Exposure to Moisture.

### Incompatible materials

Strong oxidizing agents, Forms shock-sentive mixtures with certain other materials.,Sodium/sodium oxides, Potassium. Zinc, Powdered metals, Iron, Copper, Nickel, Brass, and Iron salts.

### Hazardous decomposition products

Other decomposition products-No data available.  
In the event of a fire, see Section 5.

## 11 Toxicological information

### Toxicological (health) effects

#### Acute toxicity:

Inhalation: No data available.  
Dermal: No data available.

#### Skin corrosion/irritation

No data available.

**Serious eye damage/eye irritation**

No data available.

**Respiratory or skin sensitisation**

No data available.

**Germ cell mutagenicity**

No data available.

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by OSHA.

**Reproductive toxicity**

No data available.

**Specific organ toxicity - single exposure**

No data available.

**Specific organ toxicity - repeated exposure**

No data available.

**Additional information**

RTECS: No data available.

## 12 Ecological information

**Toxicity**

No data available.

**Persistence and degradability**

No data available.

**Bioaccumulative potential**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**Mobility in soil**

No data available.

### **Other adverse effects**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Harmful to aquatic life.

## **13 Disposal considerations**

### **Disposal methods**

#### **Product**

Uninoculated items may be discarded as normal waste.  
Inoculated waste should be discarded in a manner appropriate for biological hazards.

#### **Contaminated Packaging**

Dispose of as unused product.

## **14 Transport information**

### **UN Number**

#### **DOT (US)**

UN number: 3260      Class 8 Corrosive Material  
Corrosive/acidic (iron trichloride hexahydrate)

UN number: 1789      Class 8 Corrosive Material  
Corrosive/acidic (hydrochloric acid)

#### **IMDG**

UN number: 3260      Class 8 Corrosive Material  
Corrosive/acidic (iron trichloride hexahydrate)

UN number: 1789      Class 8 Corrosive Material  
Corrosive/acidic (hydrochloric acid)

#### **IATA**

UN number: 3260      Class 8 Corrosive Material  
Corrosive/acidic (iron trichloride hexahydrate)

UN number: 1789      Class 8 Corrosive Material  
Corrosive/acidic (hydrochloric acid)

## **15 Regulatory information**

### **Safety, health and environmental regulations specific for the product in question**

#### **SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### **SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.

#### **SARA 311/312 Hazards**

Acute health hazard.

**Massachusetts Right To Know Components**

	CAS#	Revision Date
Hydrochloric acid	7647-01-0	02/09/2013

**Pennsylvania Right To Know Components**

	CAS#	Revision Date
Water	7732-18-5	
Hydrochloric acid	7647-01-0	02/09/2013
Iron trichloride hexahydrate	10025-77-1	02/16/1993

**New Jersey Right To Know Components**

	CAS#	Revision Date
Water	7732-18-5	
Hydrochloric acid	7647-01-0	02/09/2013
Iron trichloride hexahydrate	10025-77-1	02/16/1993

**California Prop. 65 Components**

These products do not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**16 Other information****Other information**

The above information, to the best of our knowledge, is accurate. Key Scientific Products assumes no liability whatsoever for the accuracy or completeness of the information stated above. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards may be described, we cannot guarantee that these are the only hazards that exist.