Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER	
Product name:	Ferrous Sulphate Heptahydrate 98%
Other Names:	Ferrous sulphate heptahydrate; Iron sulphate heptahydrate; Iron sulfate heptahydrate; Iron protosulfate;
Chemical formula:	$FeSO_4.7H_2O$
Recommended Use:	Water and sewage treatment; reducing agent; wood preservative; fertiliser; chemical manufacture
Company Identification: **Address:**	**Kemcore International Limited** **133 CONNAUGHT RD** **UNIT 703 ALLIANCE COMM BLDG,** **HONGKONG**
Customer Centre:	
Section 2: HAZARD IDENTIFICATION	
Emergency **Overview:**	Ferrous Sulfate Heptahydrate is a blue-green, crystalline or granular solid. The primary health hazard associated with exposure to this compound is the potential for irritation of the eyes, skin, nose and other tissues which come in contact with dusts or particulates of Ferrous Sulfate Heptahydrate. Ferrous Sulfate Heptahydrate is not flammable or reactive. Thermal decomposition of Ferrous Sulfate Heptahydrate produces irritating vapors and toxic gases (e.g. sulfur oxide). Emergency responders should wear proper personal protective equipment for the releases to which they are responding.
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation
Routes of entry:	Inhalation. Skin contact. Eye contact. Ingestion.
Target organs:	Eyes. Skin. Upper respiratory tract. Liver
Skin contact:	Causes skin irritation. Dust or powder may irritate the skin

Eye contact:	Causes eye irritation.
Inhalation:	Inhalation of dusts may cause respiratory irritation.
Ingestion:	Harmful if swallowed. May irritate and cause stomach pain, vomiting and diarrhoea. Pink urine discoloration is a strong indicator of iron poisoning. Liver damage, coma, and death from iron poisoning has been recorded.
Chronic Exposure:	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to liver. The substance may be toxic to kidneys, cardiovascular system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.
Explanation of carcinogenicity:	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Medical conditions aggravated by exposure:	No information available.

Section 3: Composition Information

INGREDIENT	**CAS No.**	**CONTENT**
Ferrous sulfate heptahydrate	7782-63-0	100%

Section 4: FIRST AID MEASURES

Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion: a	Do NOT induce vomiting unless directed to do so by medical

	personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband
Skin:	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Eye:	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Advice to Doctor:	Treat symptomatically.
Section 5: FIREFIGHTING MEASURES	
Flash Point:	Not applicable.
Combustion Products:	Decomposes on heating emitting toxic fumes, including those of oxides of sulphur.
Extinguishing Media:	Not combustible, however, if material is involved in a fire use: Extinguishing media appropriate to surrounding fire conditions.
Protestive Equipment:	Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.
HAZCHEM Code:	None allocated.
Section 6: ACCIDENTAL RELEASE MEASURES	
Spills and Disposal:	Small spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

	Large spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.
Protective Clothing:	Wear protective equipment to prevent skin and eye contact and breathing in dust.
Environmental:	If contamination of sewers or waterways has occurred advise local emergency services.
Section 7: HANDLING AND STORAGE	
Handling:	Do not breathe dust. Avoid all contact with skin and eyes. Use Ferrous Sulfate Heptahydrate only with adequate ventilation.
Storage:	Keep container tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals. Storage areas should be made of fire-resistant materials. Post warning and “NO SMOKING” signs in storage and use areas, as appropriate. Use corrosion-resistant structural materials, lighting, and ventilation systems in the storage area. Floors should be sealed to prevent absorption of this material. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Have appropriate extinguishing equipment in the storage area (i.e., sprinkler system, portable fire extinguishers).
Other Information:	
Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION	
Exposure Limits:	No data available
Protective Equipment:	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's

	eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Wear appropriate protective gloves and clothing to prevent skin exposure. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Engineering Controls:	Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.
Hygiene Precautions:	Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.
Section 9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance:	Solid; Light Grey to Off-white or White
Odour:	Odourless
Specific Gravity:	1.898
Bulk Density:	1.90
pH:	3.7 (10% solution)
Solubility in Water:	Soluble in water.
Flash Point:	Not applicable
Melting Point:	64°C / 147.2°F
Other Information:	
Section 10: STABILITY AND REACTIVITY	
Stability:	Stable. Hygroscopic: absorbs moisture or water from

	surrounding air.
Hazardous Decomposition Products:	Oxides of sulfur.
Conditions to Avoid:	Avoid dust generation. Avoid exposure to moisture. Avoid exposure to air.
Materials to Avoid:	Incompatible with alkalis , oxidising agents , soluble carbonates, gold and silver salts, lead acetate, lime water, potassium, potassium iodide, sodium tartrate, sodium borate, tannin, vegetable astringent infusions and decoctions.
Section 11: TOXICOLOGICAL INFORMATION	
ERMA Classification:	6.1D, 6.3A, 6.4A.
Ingestion:	Swallowing can result in nausea, vomiting, diarrhoea, and gastrointestinal irritation. Symptoms of swallowing large amounts of soluble iron compounds may be delayed several hours and can include epigastric pain, vomiting blood and circulatory failure.
Inhalation:	Breathing in dust may result in respiratory irritation.
Skin:	Contact with skin will result in irritation
Eye:	An eye irritant.
Chronic Effects:	Evidence indicates that repeated or prolonged exposure to this chemical could result in effects on the liver.
Other Information:	
Section 12: ECOLOGICAL INFORMATION	
ERMA Classification:	9.1D, 9.3C
Ecotoxicity:	Avoid contaminating waterways.

Section 13: DISPOSAL INFORMATION	
Product Disposal::	Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.
Container Disposal:	Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.
Section 14: TRANSPORT INFORMATION	
UN Number:	Not dangerous good in sense of transport regulations.
Proper Shipping Name:	Not applicable
DG Class:	Not applicable.
UN Packing Group:	Not applicable
Other Information:	
Section 15: REGULATORY INFORMATION	
Classification: Classified as hazardous according to the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals; HAZARDOUS SUBSTANCE. <u>Classification of the substance or mixture:</u> Acute toxicity - oral - Category 4 Skin corrosion/irritation - Category 2	

Serious eye damage/eye irritation - Category 2A
Long-term hazards to the aquatic environment - Category 4

Hazard Statement(s):

H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H433 Harmful to terrestrial vertebrates.

Poisons Schedule (SUSMP): None allocated.

Section 16: OTHER INFORMATION