



SECTION 1: IDENTIFICATION OF THE ARTICLE AND OF THE COMPANY

Identification of the article	CuFe2P PRODUCTS Produced according to EN 12735-1
Use of the article	Tubes for Refrigerator applications according to EN 12735-1
Uses advised against	No specific uses advised against have been identified
Article Producer / Company identification	ELVALHALCOR S.A. / COPPER TUBES DIVISION 62nd km Nat. Road Athens – Lamia, GR 32011, Inofyta, Viotia, Greece Tel: +30 22620 48111 Fax: +30 22620 48799
Chemical Name	CuFe2P (CW107C) acc to EN 12735-1 C19400 acc to UNS (USA)
Synonym	Not applicable
Chemical Formula	CuFe2P
REACH Registration number	Cu: 01-2119480154-42-0025
Data Sheet Responsible	Dionysios Skarmoutsos dskarmoutsos@halcor.com
Emergency phone	+30 22620 48601 (available only during office hours)
Remarks	CuFe2P Products are articles according to REACH Regulation EC/1907/2006. For articles there is no legal obligation to issue a safety data sheet. However, to be able to provide information typically included in a safety data sheet also for articles, the present information data sheet for articles has been voluntarily issued.

SECTION 2: HAZARDS IDENTIFICATION

Physical/chemical hazards	The Copper in form of CuFe2P Products is not dangerous. Copper dust may potentially increase the risk of fire and explosion (sensitive to static discharge). Liquid Copper explodes in contact with water.
Human health hazards	The Copper in form of CuFe2P Products is not dangerous. Copper dust or fumes may cause irritation to respiratory tract and to the eyes. Irritating to skin. Harmful by ingestion.
Environmental hazards	Not applicable

SECTION 3: COMPOSITION / INGREDIENTS

Chemical Name	CAS Number	Concentration (c.a.)	EC / List no.	Hazard Class and Category Code(s)	Hazard Statement Code(s)	Pictograms, Signal Word Code(s)
Copper (Cu)	7440-50-8	Remaining	231-159-6	-	-	-
Iron (Fe)	7439-89-6	2.1-2.6%	231-096-4	-	-	-
Phosphorous (P)	7723-14-0	0.015 – 0.15%	231-768-7	Flam.Sol.1 Aquatic Chronic 3	H228 H412	 GHS02, Dgr
Lead (Pb)	7439-92-1	Max 0.03 %	231-100-4	Repr. 1A, Lact., STOT RE 1 C>0.03%	H360 FD, H362, H372 C>0.03%	 C>0.03%
Zinc (Zn)	7440-66-6	0.05-0.20 %	231-175-3	-	-	-
Others		Max 0.2 %				

ELVALHALCOR S.A. / COPPER TUBES DIVISION	ISSUE: A	REVISION: 0	Date of Issue: 05.07.2019
Product Data Sheet : CuFe2P PRODUCTS Page 1 of 5	Prepared by: Vassilis Solidakis Authorised by: Dionysios Skarmoutsos		

SECTION 4: FIRST-AID MEASURES

The below first aid measures are applicable when dust is generated from processing.

Inhalation	Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention in event of any complaints.
Skin	Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing and clean shoes before reuse. If irritation persists, consult a specialist.
Eyes	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. If irritation persists, consult an eye specialist.
Ingestion	Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Note to Physician	Not applicable

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media suitable	Not inflammable extinguishing media appropriate to surrounding fire conditions. (note: very finely divided particles – ultra – fine powder – may burn in air).
Special Procedures	Not applicable
Personal Protection Equipment	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear (level protection: C)

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill/Leaks	Not applicable. If exist copper dust, ventilate area of spill. Sweep up and containerize for reclamation or disposal. Do not allow to enter in sewage system. Vacuuming or wet sweeping may be used to avoid dust dispersal. Wear appropriate personal protective equipment (level protection C).
-------------	---

SECTION 7: HANDLING AND STORAGE

Handling	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid generation of dust. Do not ingest or inhale. Do not allow contact with moisture.
Storage	Keep in a tight closed container. Protect from physical damage. Store in a dry, ventilated area away from moisture and incompatibilities.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls	Handle in ventilated area.
Occupational Exposure Limits	TWA: 1 mg/m ³ as Copper dust or mist (AGGIH, 2000).

ELVALHALCOR S.A. / COPPER TUBES DIVISION	ISSUE: A	REVISION: 0	Date of Issue: 05.07.2019
Product Data Sheet : Page 2 of 5	CuFe2P PRODUCTS Prepared by: Vassilis Solidakis Authorised by: Dionysios Skarmoutsos		

Copper Personal Protective Equipment	
Respirators	Not need generally. A respiratory protection program that meets OSHA'S 29 CFR : 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.
Skin	Material: Leather
Eyes	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 EN 166.
Clothing	Safety shoes; wear appropriate protective clothing

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Appearance and odor	Redish metal, odorless
pH	Not applicable
Decomposition Temperature	Not applicable
Flash point	Not applicable
Auto Ignition Temperature	Not applicable
Explosives properties	Not applicable
Fire or explosion hazard	Not applicable
Vapor Pressure (20°C)	Not applicable
Vapor Density	Not applicable
Solubility (water)	Insoluble
Freezing/Melting Point	1080-1090 °C
Boiling Point	Not available
Specific Gravity/Density	8.8 (water=1)

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Contact incompatibilities materials, prolonged exposure to air and moisture.
Incompatibilities with Other Materials	Copper in form of CuFe2P Products is incompatible with oxidizers, alkalis, acetylene, chlorine plus oxygen difluoride, phosphorus, nitric acid, potassium peroxide, 1-bromo-2-propyne, sulphur plus chlorates. Reacts violently with ammonium nitrate, bromates, iodates, chlorates, ethylene oxide, hydrozoic acid, potassium oxide, dimethyl sulfoxide plus trichloroacetic acid, hydrogen peroxide, sodium peroxide, sodium azide, sulphuric acid, hydrogen sulphide plus air, and lead azide. A potentially explosive reaction occurs with acetylenic compounds. Copper ignities on contact with chlorine, fluorine (above 121 °C, chlorine trifluoride, and hydrazinum nitrate (above 70 °C). An incandescent reaction occurs with potassium dioxide.
Hazardous Decomposition Products	Fumes metals
Hazardous Polymerization	Not applicable

ELVALHALCOR S.A. / COPPER TUBES DIVISION	ISSUE: A	REVISION: 0	Date of Issue: 05.07.2019
Product Data Sheet : CuFe2P PRODUCTS Page 3 of 5	Prepared by: Vassilis Solidakis Authorised by: Dionysios Skarmoutsos		

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:	
Inhalation	Inhalation of dust may cause irritation of the respiratory tract. May cause congestion of nasal mucous membranes. Is possible ulceration and perforation of the nasal septum. Inhalation of material fumes causes metal fume fever (symptom similar to strong grippe).
Contact with skin	Causes irritation to skin. Symptoms include redness, itching, and pain. Exposure to copper dust may cause a greenish-black skin discoloration.
Contact with eyes	Small copper particles in the eyes may cause irritation, discoloration and damage.
Ingestion	Copper in form of CuFe2P Products ingestion causes nausea, vomiting, abdominal pain, metallic taste, and diarrhea. Ingestion of large doses may cause stomach and intestine ulceration, jaundice, and kidney and liver damage.
Chronic effects	Prolonged or repeated exposure to Copper in form of CuFe2P Products can discolour skin and hair and irritate the skin; may cause mild dermatitis, runny nose, and irritation of the mucous membranes. Repeated ingestion may damage the liver and kidneys. Repeated inhalation can cause chronic respiratory disease.
LD50/LC50	Oral (TDLo, Rats): 152 mg/kg; Oral (TDLo, Human): 0,12 mg/kg
Aggravation of Pre-existing Conditions	Persons with pre-existing skin disorders or impaired liver, kidney, or pulmonary function or pre-existing Wilson's disease may be more susceptible to the effects of this material. Copper in form of CuFe2P Products is not listed as a dangerous substance in EEC and IMDG code
Other information	IDLH (Immediately Dangerous Life Health): 100 mg/m3 (Copper dust or mist) It does not have cancer risk.

SECTION 12: ECOLOGICAL INFORMATION

Persistence/	Not applicable
Bio-accumulation	Not applicable
Environment effects	May form sediments in aqueous bottom.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14: TRANSPORT INFORMATION

UN N°	Not applicable	
Road/Rail Transport		
Shipping Name	CuFe2P Products	
ADR/RID Class	Not regulated	
ADR/RID Item Number	Not regulated	
Packing Group	Not regulated	

ELVALHALCOR S.A. / COPPER TUBES DIVISION	ISSUE: A	REVISION: 0	Date of Issue: 05.07.2019
Product Data Sheet : Page 4 of 5	CuFe2P PRODUCTS		
	Prepared by: Vassilis Solidakis Authorised by: Dionysios Skarmoutsos		

Identification Hazard Number	Not regulated	
Sea Transport		
Shipping Name	CuFe2P Products	
IMGD Class	Not regulated	
Packing Group	Not regulated	

SECTION 15: REGULATORY INFORMATION

UE Classification (67/548/EEC-88/379/EEC)	
Hazard symbol	Not applicable
Risk phrases	Not applicable
Safety phrases	S 37 Wear suitable gloves.

SECTION 16: OTHER INFORMATION

Not applicable

Disclaimer of Liability

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control. The user therefore assumes all risks of use of the product and we expressly disclaim all warranties of every kind and nature including warranties of merchantability and fitness for a particular purpose.

Handling Storage use and disposal of the product, as soon as is removed from our facility is beyond our control, and may be beyond our knowledge.

We therefore do not assume responsibility for loss damage, or expense arising from improper handling, storage use or disposal of the product.

ELVALHALCOR S.A. / COPPER TUBES DIVISION Product Data Sheet : CuFe2P PRODUCTS <i>Page 5 of 5</i>	ISSUE: A REVISION: 0 Date of Issue: 05.07.2019
	Prepared by: Vassilis Solidakis Authorised by: Dionysios Skarmoutsos