

SAFETY DATA SHEET

According to Regulation (EC) No 2015/830

Date Prepared: 18.10.2016
Form No: GBF201810180646



Product Name: **CRYSTAL FLUX**

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : CRYSTAL FLUX

Chemical Family : Powder mixture.

Identified Use : Industrial use.

Uses advised against : No specific uses advised against are identified.

Details of the manufacturer and supplier of the safety data sheet :

Company name: Meb Metal ve Bileşikleri San. Tic. A.ş

Address : Barış Mah. 1804/2 Sok.No:24 Gebze/KOCAELİ /TÜRKİYE

Contact Person : Evren KUMCU

Email: info@mebmetal.com.tr

Telephone no : +90 262 641 77 10 - +90 262 646 30 55 **Fax no :** +90 262 646 53 45

Emergency telephone number : +90 262 641 77 10

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture :

Classification according to Regulation (EC) No 1272/2008 (CLP):

Skin Corr. 1B;H314

GHS05



**Acute Tox. 4;H302
STOT SE 3;H335**

GHS07



Aquatic Acute 1; H400

Aquatic Chronic 1;H410

Hazard Statements (H):

H302 : Harmful if swallowed.

H314 : Causes severe skin burns and eye damage.

H335 : May cause respiratory irritation.

H410 : Very toxic to aquatic life with long-lasting effects.

Precautionary Statements (P):

P202 : Do not handle until all safety precautions have been read and understood.

P260 : Do not breathe dust/fume/gas/mist.

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

P270 : Do not eat, drink or smoke when using this product.

P273 : Avoid release to the environment.

P280 : Wear protective gloves, eye and face protection.

P305/351/338/313 IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

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P302 /352/333/313 IF ON SKIN : Wash with soap and water. If skin irritation or a rash occurs: Get medical advice/attention.

P304+P340 IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P403 + P233 : Store in a well-ventilated place. Keep container tightly closed.

P501: Dispose of contents/container to comply with local, state and federal regulations.

Physical hazards : Not classified.

Human Health : Very irritating to eyes ,skin and respiratory system. Harmful if swallowed. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath.

Environment : Very toxic to aquatic life with long-lasting effects.

Chronic Hazards : On repeated exposure eyes, nose and skin irritation. Prolonged skin exposure causes skin irritation, dryness and itching.

Label Elements :

Label In Accordance With (EC) No. 1272/2008

GHS Pictogram code : GHS05. GHS07. GHS09.

Signal Word : Danger.

Hazard Determining Components : Zinc chloride; Ammonium chloride.

See hazard pictograms, H and P statements above.

Other Hazards : None.

This product does not contain any PBT or vPvB substances.

3.COMPOSITION/INFORMATION ON INGREDIENTS

Mixture: consisting of the following components (Chemical Analysis) :

Components	Cons. % w/w	EC no	CAS no	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Zinc chloride	25-60	231-592-0	7646-85-7	Acute Tox. 4; H302 Skin Corr.1B;H314 Aquatic Acute 1;H400 Aquatic Chronic 1;H410 STOT SE 3;H335 : C ≥ % 5
Ammonium chloride	40-75	235-186-4	12125-02-9	Acute Tox. 4;H302 Eye Irrit. 2;H319

Composition Comments : The data shown are in accordance with the latest EC Directives

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4. FIRST AID MEASURES

Description of first aid measures :

General : Take off all contaminated clothes. Do not get in eyes, on skin, do not breathe. Get medical attention.

Inhalation: Remove to fresh air. Get medical attention if any discomfort continues.

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention.

Skin contact: Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Ingestion: Do not induce vomiting. Rinse mouth with plenty of water. Drink a few glasses of water or milk. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed :

Inhalation : Inhalation of mists can cause corrosive action on mucous membranes. Symptoms include burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea.

Ingestion : Causes corrosive burns of the mouth, gullet and gastrointestinal tract if swallowed. Symptoms include burning, choking, nausea, vomiting and severe pain.

Skin contact : Severe skin irritation. Symptoms include burning, itching, redness, inflammation and/or swelling of exposed tissues.

Eye contact : Severe eye irritation or damage. Symptoms include eye burns, watering eyes.

Indication of any immediate medical attention and special treatment needed : Eyes, skin or respiratory system irritation or burns; headache.

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Specific Hazards : Toxic chlorine gas is released at high temperatures. Fire must be intervened immediately.

Extinguishing Media: This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials like CO₂, foam or dry chemicals.

Unsuitable Extinguishing Media : Water jet.

Unusual Fire and Explosion Hazards: In case of fire, the following can be released: Carbon, zinc and ammonium oxides, zinc chloride, ammonium chloride, hydrogen chloride and other chlorine gases.

Advice for fire-fighters : Wear self-contained respiratory protective device. Wear fully protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Wear protective clothing as described in section 8 of this safety data sheet. Ensure adequate air ventilation. Avoid eyes and

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skin contact. Do not breathe dusts or mists.

Methods and material for containment and cleaning up : Eliminate flames, sparks, excessive temperatures. Do not touch spilled material. Small quantities may be flushed to drains with plenty of water. Large Spillages: Pick up with vacuum or absorbent liquid, store in an appropriate waste disposal container. Prevent entry into sewers, basements or confined areas.

Environmental precautions : Keep spills away from drinking water supplies. Prevent entry into sewers, basements or confined areas. Dispose according to federal, state and local official regulations.

7. HANDLING AND STORAGE

Precautions for safe Handling: Provide good ventilation. Keep away from all ignition sources and sparks. Avoid eyes and skin contact. Do not breathe dusts and mists. Observe good chemical hygiene practices. Keep away from metals and reactive materials. Do not mix with cyanide and sulfur. Dust mixtures may cause explosion. Do not eat, drink or smoke during use.

Conditions for Safe Storage, including any incompatibilities: Store at moderate temperatures in dry, well ventilated area under 40 °C (104 F). Keep away from incompatibles such as oxidizing agents, acids and alkalis. Keep away from heat sources and open flames. Keep containers closed and upright protected from physical damage. Provide eye wash stations and safety showers in storage areas.

Specific end use(s) : The identified uses for this product are detailed in Section 1.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits :

Zinc Chloride TWA : 1 mg/m³

Ammonium Chloride TWA : 10 mg/m³

Chlorine gas (Cl₂) TWA : 0.5 ppm ,2 mg/m³

DNEL (Derived No Effect Level) :

Zinc Chloride :

DNEL (worker-dermal) : 8.3 mg/kg (chronic,systemic)

DNEL (worker-inhalation) : 1 mg/m³ (chronic,systemic)

Ammonium Chloride

DNEL (worker-dermal) : 128.9 mg/kg (chronic,systemic)

DNEL (worker-inhalation) : 43.97 mg/m³ (chronic,systemic)

PNEC (Predicted No Effect Concentration)

Zinc Chloride

PNEC (fresh water) : 0,0206 mg/L (acute)

PNEC (marine water) : 0.0061 mg/L (acute)

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Ammonium Chloride

PNEC (fresh water) : 0.25 mg/L (acute)

PNEC (marine water) : 0.025 mg/L (acute)

Exposure controls :

Engineering measures : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of dusts and mists below their respective threshold limit value. The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Do not eat or drink while working. Avoid contact with the eyes and the skin. Provide eyewash stations and safety showers.

Personal Protection :

Eye Protection: Safety glasses, goggles or a face shield (EN 166).

Hands Protection : Protective PVC or neopren gloves (EN 374).

Skin and Body Protection: Protective work clothing.

Respiratory Protection : Use suitable NIOSH approved filter mask or respiratory protective device.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Solid in crystal form.

Colour : White or light yellow.

Odour : No odour.

pH (soln.) : 3.5-5.0

Flash Point : Not applicable.

Boiling Point : Not available.

Melting Point : 343°C.

Relative density : Not available.

Oxidation Properties : None.

Explosive Properties : None.

Solubility : Partially soluble in water.

10. STABILITY AND REACTIVITY DATA

Chemical Stability : Stable under prescribed storage and normal use conditions. Produces toxic gases in contact with acids.

Reactivity : Avoid contact with acids and alkalis.

Possibility of hazardous reactions : Exothermic reaction with water.

Conditions to avoid : Excessive heat and open flames, water and humidity. Do not allow the moist material to come into contact with liquid metals.

Incompatibility :

Materials to avoid : Oxidizing agents, acids and alkalis; water and humidity.

Hazardous Decomposition or By Products: On heating/burning: release of toxic and corrosive gases/vapours (Carbon, zinc and ammonium oxides, zinc chloride, ammonium chloride, hydrogen chloride and other chlorine gases)

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11. TOXICOLOGICAL INFORMATION

Acute toxicity : Harmful if swallowed.

Inhalation : Inhalation of mists can cause corrosive action on mucous membranes . Symptoms include burning, choking, coughing, wheezing, laryngitis, shortness of breath, headache or nausea.

Ingestion : Harmful if swallowed. Causes corrosive burns of the mouth, gullet and gastrointestinal tract if swallowed. Symptoms include burning, choking, nausea, vomiting and severe pain.

Eye contact : Causes severe eye irritation or damage. Symptoms include eye burns, watering eyes.

Skin contact : Causes severe skin irritation. Symptoms include burning, itching, redness, inflammation and/or swelling of exposed tissues.

Sensitization : None.

Chronic Toxicity : On repeated exposure eyes, nose and skin irritation. Prolonged skin exposure causes skin irritation, dryness and itching.

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction) : Not available.

Specific target organ toxicity – single exposure :

STOT – Single exposure : May cause respiratory irritation.

Specific target organ toxicity – repeated exposure :

STOT – Repeated exposure : None.

Aspiration Toxicity : None.

LD₅₀ oral rat (Zinc Chloride) : 350mg/kg

LD₅₀ oral rat (Ammonium Chloride) : 1410mg/kg

ATE_{mix} oral : < 2000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity : Very toxic to aquatic life with long-lasting effects.

Do not discharge into drains or rivers.

LC₅₀ (Zinc Chloride): 0.4-2.2 mg/L /96 h (Cyprinus carpio)

EC₅₀ (Zinc Chloride): 0.33 mg/L /48 h (Daphnia magna)

LC₅₀ (Ammonium Chloride): 42.91 mg/L /96 h (Fish-Rainbow trout))

EC₅₀ (Ammonium Chloride): 136.6 mg/L /48 h (Daphnia magna)

Toxicity : No data available.

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Persistence and degradability : The biodegradability of this product has not been stated.

Bioaccumulative potential : No bioaccumulation expected.

Mobility in soil : No information.

Results of PBT and vPvB assessment : This product does not contain any PBT or vPvB substances.

Other adverse effects : No information required.

13. DISPOSAL CONSIDERATIONS

General information : This product is hazardous waste.

Waste treatment methods : Do not discharge into drains or rivers.

Dispose according to federal, state and local official regulations.

14. TRANSPORT INFORMATION

General Classification (IMDG, IATA/ICAO, ADR/RID/DOT) :

UN No : UN 3260

Proper Shipping Name : UN 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.(ZINCCHLORIDE)

Transport label : 8

Packing group : III

Danger code : 80

Tunnel code : E

EmS Code : F-A,S-B

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

Environmental Hazards : Yes.

Environmentally hazardous substance/Marine pollutant : Yes (ZincChloride).

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture :

EU Legislation :

Regulation (EC) No 2015/830 of the European Parliament and of the Council of 28 March 2015 on Classification, Labelling and Packaging of substances and mixtures (CLP) and amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Approved Code of Practice :

Safety Data Sheets for Substances and Preparations.

Classification and Labelling of Substances and Preparations Dangerous for Supply.

Chemical Safety Assessment :

A chemical safety assessment has not been carried out.

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The regulatory information is not intended to be comprehensive. Other local regulations may apply to this material.

16. OTHER INFORMATION

This Safety Data Sheet (SDS) has been fully issued according to the CLP and REACH regulations based on the information received from the product owner.

Safety Data Sheet Issued By : Chemical Engineer Birgul Ankaralı (info@gbfhazirlama.com)

Date Issued : 18.10.2018

Contact Person : Evren KUMCU : info@mebmetal.com.tr

Hazard Statements in Article 3 :

H302 : Harmful if swallowed.

H314 : Causes severe skin burns and eye damage.

H319 : Causes serious eye irritation.

H335 : May cause respiratory irritation.

H400 : Very toxic to aquatic life.

H410: Very toxic to aquatic life with long-lasting effects.

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