



1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME: Zinn 7 Flux
USE: A solder flux for use on zinc and copper.
SUPPLIER: Premium Roofing Products Ltd.
 PO Box 492
 Enfield,
 Middlesex, EN3 7ZW
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2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	EC N°	CAS N°	CONTENTS	SYMBOL LETTERS	R PHRASE N°
Zinc chloride	231-592-0	7646-85-7	>25%	C, N	34, 50, 53
Ammonium chloride	235-186-4	12125-02-9	<20%	Xn, Xi	22, 36
Hydrochloric acid	231-595-7		<5%	C	34, 37
Isopropanol	200-661-7	67-63-0	<20%	F, Xi	11, 36, 67

3. HAZARDS IDENTIFICATION

MAIN HAZARDS: Contact with the skin causes burns.
OTHER HAZARDS: The product is an irritant to the skin, eyes and if inhaled. Harmful if ingested.

4 FIRST AID MEASURES

INHALATION: In the case of inhalation, remove from place of exposure. Apply artificial respiration if necessary. A qualified person may administer oxygen in the case of breathing difficulties. Get medical attention.
INGESTION: Get medical attention immediately. Make person drink plenty of water.
SKIN CONTACT: Wash the affected skin immediately with abundant water. Remove all severely contaminated clothing under a shower.
EYE CONTACT: Promptly wash eyes with plenty of water for at least 15 minutes. Get medical attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Foam, dry chemical powder, water.
EXTINGUISHING MEDIA NOT TO BE USED: None specified.
EXPOSURE HAZARDS: Release of toxic vapours (hydrogen chloride, chlorine, phosgene).
PROTECTION OF FIRE-FIGHTERS: Wear an approved respirator and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear protective clothing, boots, gloves and respirator.
ENVIRONMENTAL PRECAUTION: Significant spillages should be reported to safety personnel.
CLEAN-UP PROCEDURES: Prevent spread of any spillage by bunding and neutralise with lime or soda. Provide adequate ventilation. Stop in case of high winds.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS: Avoid inhaling vapours and skin or eye contact. Wear gloves, security spectacles and clothes that provide complete protection during handling. Ensure adequate ventilation.
STORAGE PRECAUTIONS: Store away from heat in air-tight, tightly closed containers. The containers should be resistant to acids (i.e. preferably plastic, not metallic construction).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMIT VALUES:	INGREDIENT	CAS N°	LTEL (8 hrs TWA)	STEL (15 min)
	Zinc chloride fume	7646-85-7	1 mg.m ⁻³	2 mg.m ⁻³
	Hydrogen chloride	7647-01-0	2 mg.m ⁻³	8 mg.m ⁻³
	Ammonium chloride fume	12125-02-9	10 mg.m ⁻³	20 mg.m ⁻³

VENTILATION: Provide adequate ventilation such that the vapour concentration is maintained below the permitted exposure limit value.

RESPIRATORY PROTECTION: Use an approved respirator when the exposure limit value is exceeded.

HAND PROTECTION: Use rubber gloves or an antacid barrier cream.

EYE PROTECTION: Use security spectacles that provide complete eye protection, or face shield.

SKIN PROTECTION: Wear boots and suitable protective clothing or apron.

PERSONAL HYGIENE: Avoid inhaling product vapours, its ingestion or contact with skin or eyes. Do not eat, drink or smoke in the workplace. Wash hands well before a meal or before drinking or smoking. Observe good standards of personal hygiene

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Corrosive liquid	ODOUR:	Alcohol
MELTING POINT/RANGE:	Unknown	BOILING POINT/RANGE:	Unknown
FLASH POINT:	Not applicable	RELATIVE DENSITY:	1.3 at 15°C
INFLAMMABILITY:	Not applicable	AUTO-INFLAMMABILITY:	The product does not spontaneously combust
DANGER OF EXPLOSION:	No incendiary or explosive risk under normal conditions	PROPERTIES SUPPORTING COMBUSTION:	Not applicable
SOLUBILITY – water:	Soluble	VAPOUR PRESSURE:	Unknown

10 STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions.
CONDITIONS TO AVOID:	Heat. Contact with water.
MATERIALS TO AVOID:	Water.
HAZARDOUS DECOMPOSITION PRODUCTS:	At elevated temperatures: release of hydrogen chloride, chlorine, phosgene, glycol and alcohol vapours.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:	
Inhalation:	Causes burns to the respiratory system. Zinc chloride fumes can damage the nasopharynx mucous membrane and the respiratory system, leading to a pale grey cyanosis, from which fatalities have been reported.
Ingestion:	Causes burns to the digestive tract. Hydrochloric acid: moderately toxic by oral route. Zinc chloride LD ₅₀ oral, rat: 350mg kg ⁻¹ (8646-85-7).
Skin contact:	Causes burns. Zinc chloride can cause ulcerations on the fingers, hands and forearms among those who employ it as a soldering flux or for other industrial uses.
Eye contact:	Causes severe burns.
CHRONIC TOXICITY:	
IRRITATION/ SENSITISATION:	Irritant to skin, eyes and mucous membranes.

12. ECOLOGICAL INFORMATION

MOBILITY:	
	Known or predicted distribution within the environment: not applicable
	Surface tension: not applicable
	Adsorption/desorption: not applicable
PERSISTENCE AND DEGRADABILITY	
	Biodegradation: not applicable
	Aerobic and anaerobic degradation: not applicable
	Persistence: not applicable
BIOACCUMULATIVE POTENTIAL:	Unknown
SHORT AND LONG TERM EFFECTS ON:	
	Aquatic organisms algae: IC ₅₀ (72h): unknown

	daphnia: EC ₅₀ (48h): unknown
	fish: LC ₅₀ (96h): unknown
Soil based organisms	Unknown
Terrestrial flora & fauna	Unknown

OTHER ADVERSE EFFECTS

Potential impoverishment of the ozone layer: this product does not contain substances harmful to the ozone layer
 Potential formation of photochemical ozone: not applicable
 Effects on water treatment plants: unknown

13. DISPOSAL CONSIDERATIONS

WASTE FROM RESIDUES: Do not dispose of this product to drains or to the natural environment. Do not dispose of with household waste. Comply with national and local legislation regarding the disposal of waste.

14. TRANSPORT INFORMATION:**REGULATIONS:**

ADR/RID (road/rail): UN N°: 3264 CLASS: 8 PACKAGING GROUP: III
PRODUCT DESCRIPTION: Corrosive liquids n.o.s. (solution containing zinc chloride and hydrochloric acid)

PACKAGING: Plastic bottles (1 litre)

15. REGULATORY INFORMATION**LABEL FOR SUPPLY:**

C: Corrosive

RISK PHRASES:

R10 Inflammable.
 R34 Causes burns.
 R37 Irritating to the respiratory system.
SAFETY PHRASES: S7 Keep container tightly closed
 S16 Keep away from sources of ignition – No smoking.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S43 In case of fire use sand, CO₂, or inert powder extinguisher. Never use water.
 S45 In case of accident or if you feel unwell, seek medical attention immediately (show the label where possible).
 S60 This material and its container must be disposed of as hazardous waste.

LABELLING REFERENCES: CE Directive 67/548/CE and 99/45/CE.

Conformity is maintained equally with all other current national legislation for this product.

Dangerous substance according to COMAH Directive 96/82/CE: (x) no () yes

If 'yes': - quantity for application of Articles 6 and 7 is _____
 - quantity for application of Article 9 is _____

16. OTHER INFORMATION**RISK REFERENCES**

- RTECS; Registry of Toxic Effects of Chemical Substances; NIOSH, November 2001 edition
 - Sax's Dangerous Properties of Industrial Materials (8th edition), Richard J. Lewis Sr.

DOCUMENT REFERENCE:

Umicore SDS (French), revision date 12/06/02

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