

## R7450 - FLUXALLOY 52T

## Safety Data Sheet

## 1. Identification of the substance / preparation and the Company

## 1.1 Identification of the substance or preparation

Code: R7450  
Product name: FLUXALLOY 52T

## 1.2 Use of the substance / preparation

## 1.3 Company identification

Name: SALD-FLUX SRL  
Full address: Via Privata Friuli 5  
District and Country: 20090 Pieve Emanuele Fraz.Fizzonasco (MI)  
Italia  
Tel.: 0039 - 02 - 90781812  
Fax: 0039 - 02 - 90784933  
e-mail address of the competent person responsible for the Safety Data Sheet: quality@saldflux.net

## 1.4 Emergency telephone

For urgent inquiries refer to: Ospedale di Niguarda (Milano) - 02 - 66101029

## 2. Hazards Identification.

## 2.1 Substance/Preparation Classification.

This product is dangerous under 67/548/EEC and 1999/45/EC directives and subsequent amendments. Therefore, this product requires a safety data sheet according to the Regulation (EC) 1907/2006 and subsequent amendments. Further information on health and/or environmental hazards can be found in sections 11 and 12 of this sheet.

Danger Symbols: Xn-N

R phrases: 20/22-36-52/53

## 2.2 Danger Identification.

HARMFUL BY INHALATION AND IF SWALLOWED.  
IRRITATING TO EYES.  
HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

## 3. Composition / Information on ingredients.

## Contains:

Name.	Concentration % (C).	Classification.
<b>SILVER CYANIDE</b>	36<= C <38	R 52
<i>C.A.S. number</i> 7440-22-4		
<b>POTASSIO FLUOBORATO</b>	4<= C <6	Xn R 20/22
<i>C.A.S. number</i> 14075-53-7		Xi R 36
<i>EC number</i> 237-928-2		
<b>ZINC POWDER - ZINC DUST</b>	20<= C <22	N R 52/53
<i>C.A.S. number</i> 7440-66-6		
<i>EC number</i> 231-175-3		
<i>INDEX number</i> 030-002-00-7		
<b>1-METHOXY-2-PROPANOL ACETATE</b>	0,2<= C <0,42	R 10
<i>C.A.S. number</i> 108-65-6		Xi R 36
<i>EC number</i> 203-603-9		
<i>INDEX number</i> 607-195-00-7		

# SALD-FLUX SRL

Revision nr.5  
Dated 05/10/2010  
Printed on 05/10/2010  
Page n. 2 / 5

EN

## R7450 - FLUXALLOY 52T

### BORATO DI POTASSIO

C.A.S. number  
EC number

16481-66-6  
237-262-2

0,2<= C <0,42

Xi R 36/37/38

The complete text of -R- phrases is specified in section 16.

#### 4. First aid measures.

**EYES:** Irrigate copiously with clean, fresh water for at least 15 minutes.  
Seek medical advice.

**SKIN:** Immediately wash with plenty of water. Remove all contaminated clothing. Obtain immediate medical attention. Wash contaminated clothing separately before using them again.

**INHALATION:** Remove to open air. If breathing is irregular or stopped, administer artificial respiration. Obtain immediate medical attention.

**INGESTION:** Obtain immediate medical attention. Induce vomiting only if indicated by the doctor. Give nothing by mouth to an unconscious person.

#### 5. Fire-fighting measures.

##### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

##### SUITABLE EXTINGUISHING MEDIA

The extinction equipment should be of the conventional kind: carbon dioxide, foam, powder and nebulised water.

##### EXTINGUISHING MEDIA WHICH SHALL NOT BE USED FOR SAFETY REASONS

None in particular.

##### HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products (carbon oxide, toxic pyrolysis products, etc).

##### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Hardhat with visor, fireproof clothing (fireproof jacket and trousers with straps around arms, legs and waist), work gloves (fireproof, cut proof and dielectric), a depressurised mask with facemask covering the whole of the operator's face or a self-respirator (self-protector) in the event of large quantities of foam.

#### 6. Accidental release measures.

##### PERSONAL PRECAUTIONS

Eliminate sources of ignition (cigarettes, flames, sparks, etc.) from the area in which the leak occurred. If there are no contraindications, spray solid products with water to prevent the formation of dust. Use breathing equipment if fumes or powders are released into the air. Block the leakage if there is no hazard. Do not handle damaged containers or leaked product before donning appropriate protective gear. Send away individuals who are not suitably equipped. For information on risks for the environmental and health, respiratory tract protection, ventilation and personal protection equipment, refer to the other sections of this sheet.

##### ENVIRONMENTAL PRECAUTIONS

The product must not penetrate the sewers, surface water, ground water and neighbouring areas.

##### METHODS FOR CLEANING UP

For liquid products, suck into a suitable container (made of material not incompatible with the product) and soak up any leaked product with absorbent inert material (sand, vermiculite, diatomaceous earth, Kieselguhr, etc). Collect the majority of the remaining material and deposit in containers for disposal. For solid products, use spark proof mechanical tools to collect the leaked product and place in plastic containers. If there are no contraindications, use jets of water to eliminate product residues. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 7. Handling and storage.

Avoid the accumulation of electrostatic charges. Store the containers sealed and in a well ventilated place. Vapours may ignite with explosion, it is therefore necessary to avoid accumulation keeping the windows and doors open, ensuring crossventilation.

Without adequate ventilation, the vapours may accumulate at the bottom and ignite at a distance, if triggered off, with the risk of flashback.

Keep far away from sources of heat, sparks and bright flames. Do not smoke, use matches or lighters. Keep the containers earthed while decanting and wear antistatic boots.

Vigorous stirring and flow through the pipings and equipment may cause the formation and accumulation of electrostatic charges due to the low conductivity of the product. In order to avoid the risk of fire outbreak and explosion never use compressed air during movement.

#### 8. Exposure control / personal protection.

##### 8.1 Exposure limit values.

Name	Type	Country	TWA/8h	STEL/15min

# SALD-FLUX SRL

## R7450 - FLUXALLOY 52T

Revision nr.5  
Dated 05/10/2010  
Printed on 05/10/2010  
Page n. 3 / 5

EN

			mg/m3	ppm	mg/m3	ppm	
SILVER CYANIDE	TLV-ACGIH		0,01				
POTASSIO FLUOBORATO	VLA		2,5				
ZINC POWDER - ZINC DUST	TLV-ACGIH		5				
1-METHOXY-2-PROPANOL ACETATE							
	OEL	EU	275	50	550	100	Skin
	OEL	IRL		50		100	Skin
	WEL	UK		50		100	Skin

### 8.2 Exposure controls.

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration or bad air vent. If such operations do not make it possible to keep the concentration of the product below the permitted workplace exposure thresholds a suitable respiratory tract protection must be used. See product label for hazard details during use. Ask your chemical substance suppliers for advice when choosing personal protection equipment. Personal protection equipment must comply with the rules in force indicated below.

#### HAND PROTECTION

Protect hands with category I (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in latex, PVC or equivalent. The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable. Gloves' limit depends on the duration of exposure.

#### EYE PROTECTION

Wear protective airtight goggles (ref. standard EN 166).

#### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (ref. Directive 89/686/CEE and standard EN 344). Wash body with soap and water after removing overalls.

#### RESPIRATORY PROTECTION

If the threshold value for one or more of the substances present in the preparation for daily exposure in the workplace or to a fraction established by the company's prevention and protection service is exceeded, wear an FFP3 (ref. standard EN 141) type half mask.

The use of breathing protection equipment, such as masks with organic vapour and dust/mist cartridges, is necessary in the absence of technical measures limiting worker exposure. The protection provided by masks is in any case limited.

If the substance in question is odourless or its olfactory threshold is higher than the relative exposure limit and in the event of an emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear self-contained, open-circuit compressed air breathing apparatus (ref. standard EN 137) or fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece (ref. standard EN 138).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

### 9. Physical and chemical properties.

Odour	typical
Appearance	solid
Solubility	insoluble
Viscosity	Not available.
Vapour density	Not available.
Evaporation Rate	Not available.
Reactive Properties	Not available.
Partition coefficient: n-octanol/water	Not available.
pH.	Not available.
Boiling point.	Not available.
Flash point.	Not available.
Explosive properties.	Not available.
Vapour pressure.	Not available.
Molecular weight.	605,569
Specific gravity.	4,530 Kg/l

### 10. Stability and reactivity.

The product is stable even if the powders are potentially explosive when mixed with air.

Zn powder: it reacts with strong acids and alkalis, forming hydrogen which is explosive; likewise it reacts with water, but less violently. Thus water is contra-indicated to extinguish the fires.

Boric acid decomposes above 100 °C and forms boric anhydride.

**R7450 - FLUXALLOY 52T****11. Toxicological information.**

Acute effects: inhalation and ingestion of this product are harmful. This product may irritate mucosae, the upper respiratory tract, eyes and skin. Exposure symptoms may include: stinging and irritated eyes, mouth, nose, throat; cough, respiratory disorders, dizziness, headache, nausea and sickness.

In the most serious cases, inhalation of this product may cause larynx and bronchial tube edema and irritation, chemical pneumonia and pulmonary edema. Ingestion of even small amounts of this product may cause serious health disorders (stomach pain, nausea, sickness, diarrhoea).

BORIC ACID: oral LD50 (mg/kg) 2660 (RAT) ; dermal LD50 (mg/kg) > 2000 (RABBIT) ; inhalation LC50 (rat) 0,16 mg/l/4h.

**12. Ecological information.**

This product is dangerous for the environment and the aquatic organisms. In the long term, it may even have negative effects on aquatic environment.

ZINC POWDER - ZINC DUST  
LC50 (96h): > 2,5 mg/l

**13. Disposal consideration.**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**14. Transport information.**

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations.

These goods must be packed in their original packagings or in packagings made of materials resistant to their content and not reacting dangerously with it. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.

**15. Regulatory information.**

Xn



HARMFUL

N



DANGEROUS FOR THE ENVIRONMENT

**R 20/22** HARMFUL BY INHALATION AND IF SWALLOWED.  
**R 36** IRRITATING TO EYES.  
**R 52/53** HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

**S 25** AVOID CONTACT WITH EYES.  
**S 26** IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.  
**S 29** DO NOT EMPTY INTO DRAINS.  
**S 60** THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF AS HAZARDOUS WASTE.  
**S 61** AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/SAFETY DATA SHEETS.

Contains: POTASSIO FLUOBORATO

Danger labelling under directives 67/548/EEC and 1999/45/EC and following amendments and adjustments.

**R7450 - FLUXALLOY 52T**

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

**16. Other information.**

Text of -R- phrases quoted in section 3 of the sheet.

<b>R 10</b>	FLAMMABLE.
<b>R 20/22</b>	HARMFUL BY INHALATION AND IF SWALLOWED.
<b>R 36</b>	IRRITATING TO EYES.
<b>R 36/37/38</b>	IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
<b>R 52</b>	HARMFUL TO AQUATIC ORGANISMS.
<b>R 52/53</b>	HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

**GENERAL BIBLIOGRAPHY**

1. Directive 1999/45/EC and following amendments;
2. Directive 67/548/EEC and following amendments and adjustments (technical adjustment XXIX);
3. Regulation (EC) 1272/2008 (CLP) of the European Parliament;
4. Regulation (EC) 1907/2006 (REACH) of the European Parliament;
5. The Merck Index. - 10th Edition;
6. Handling Chemical Safety;
7. Niosh - Registry of Toxic Effects of Chemical Substances;
8. INRS - Fiche Toxicologique (toxicological sheet);
9. Patty - Industrial Hygiene and Toxicology;
10. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition;

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product .

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

**Changes to previous review.**

The following sections were modified:

03