

## MATERIAL SPECIFICATION

### MATERIAL SAFETY DATA SHEET

#### SECTION 1 CHEMICAL PRODUCT IDENTIFICATION

MSDS Name	Leaded Solder Wire
Product Description	IIOC 60/61, IIOC 63 FLUX RMA KS5000
Composition	Tin/Lead
Product Type	FLUX RMA KS5000
Diameter	0.5/0.8/1.0/1.2/1.5/2.0MM
Weight	10/12/20/50/100/200/250/500/1000G

RMA	Mildly activated rosin flux (per QQ-S-571F)
RA	Activated rosin or resin flux (per QQ-S-571F)
ROL1	Rosin flux with low flux residue activity (per QQ-S-571F)

#### SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

MSDS Product Name	Leaded Solder Wire
Material Chemical Type	Welding

Composition	CAS #	OSHA PEL (mg/m <sup>3</sup> )	TLV-TWA (mg/m <sup>3</sup> )	TLV-STEL (mg/m <sup>3</sup> )
Sn	7440-31-5	2.0	2.0	N/A
Pb	7439-92-1	0.1	0.2	N/A
Rosin/ Flux	65997-06-0	N/A	0.1	N/A

#### SECTION 3 HAZARDS IDENTIFICATION

Health Hazards	Acute Stimulate an eye skin, and upper respiratory track.
Safety Hazards	Causes severe burns. Risk of serious damage to eyes. Limited evidence of a carcinogenic effect.

## SECTION 4 FIRST AID MEASURES

Symptoms and consequences	Headache, Dizziness, nausea and anaesthesia. Irritate skin, eyes and respiratory tract. Dry skin
Inhalation	Turn to fresh air, if worse, seek medical care immediately.
Skin	Clean skin by soap and water, if worse, seek medical care immediately.
Eyes	Wash by water in 10 minutes immediately, if worse, seek medical care.
Ingestion	Do not vomit, drink if possible, if worse, seek medical care.

## SECTION 5 FIRE FIGHTING MEASURES

Fire extinguishing measure and extinguishing media	CO-blanket, chemical dry powder, alcohol resistant foam. Soil/ Sand only when little fire.
Personal Protection	Respiratory protection must be worn.
Others	Cool down the machine nearby by Showering.

## SECTION 6 LEAK HANDLING

General Information	Exclude sources of ignition and ventilate the area. Isolate from sources of heat, sparks and open flame.
Personal Protection	Wear protective clothing for all parts of the body.
Spill/Leak	Do not allow to enter drains or watercourses and place in container for disposal according to local regulations..

## SECTION 7 HANDLING and STORAGE

Handling	Do not allow to enter drains or watercourses.
Storage	In Fresh air.
Storage temperature	25°C

## SECTION 8 SPECIAL PROTECTION INFORMATION

Breath protection (Specify type)	There is enough ventilation did not require under normal circumstances
Local exhaust	Yes

Machine(Ordinary)	Yes
Special announcement	Not applicable
Protective gloves	Rubber, Neoprene,PVC or Equivalent

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Form	Solid
Color	Silver and white
Odour	Odourless
Boiling Point	Not Applicable
Melting Point	183-227°C
Density (20 °C )	8.5g/cm <sup>3</sup>

## SECTION 10 STABILITY AND REACTIVITY

Stability	Stable under normal condition
Condition	Fire and spark
Taboo	Strong Oxidant
Hazardous Decomposition Products	None

## SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity Oral	Hypo toxicity , LD50 > 2000mg/kg
Acute Toxicity Skin	Hypo toxicity , LD50 > 2000mg/kg
Acute Toxicity Inhalation	Hypo toxicity , LD50 > 5mg/L
Skin Irritation	Slight irritation under permission of EU
Eye Irritation	Irritate
Skin Sensation	Part of Sensation
Repeated-dose Toxicity	Repeated exposures do not cause significant toxic reactions.
Mutagenicity	None
Influence	Repeated inhalation may cause dermatitis, irritation of eye and respiratory system and paralysis

## SECTION 12 DISPOSAL CONSIDERATION

Waste Treatment	Recycling or reuse
Product Treatment	Recycling or reuse
Local Law Information	Dispose the waste according to the local regulations.

## SECTION 13 ECOLOGICAL DATAS

Flex	Avoid release to soil in Liquid Form. If so, it may pollute underground water.
Toxicity to Fish	None, LD/EC/IC50 > 1000mg/L
To Aquatic invertebrates	None, LC/EC/IC50 > 1000mg/L
Dirty treatment	None, LC/EC/IC50 > 1000mg/L
Other	This product is not going to cause any toxicity to the aquatic environment.

## SECTION 14 TRANSPORTIATION DATA

Classification	Not applicable
Hazardous Marks	Not applicable
Packaging	Not applicable
ICAO U.N.no.	Not applicable

## SECTION 15 REGUALTION INFORMATION

1) EC Dangerous Classification
(R36/37) Eye and skin irritation
(R20/R21) Hazard with inhalation and ingestion
(R38) Irritate to skin
2) EC Safety No.
(S9) Storage in fresh air.
(S16) Avoid fire - No smoking.
(S24/25) Avoid contact to skin and eye
(S33) Precaution to ESD and EOS

(S36) Wear protective clothes

(S43A) Put out fire with sand, soil, chemical powder and foam.

## SECTION 16 OTHER INFORMATION

Reference datas	None
SDS	To all relevant customers for solder wire.
Attention	The above information is believed to be accurate and is based on our present state of knowledge and experience. However, no warranty or representation with respect to such information is intended or given. This information is intended to be used for safety and environmental purposes only and should not be relied upon for any other purposes.

Flux name	Flux type	Flux description & features
ROL1	ROL1	rosin flux with a low halogen content; after soldering the non-aggressive brown residue remains, which is recommended to be removed
KS-6	RMA	“neutral” organic water-soluble flux for soldering in hard-to-reach places; after soldering the non-aggressive residue remains, which should be washed off with water
KS5000	RMA	halogen-free "no-clean" (no-need-to-clean) rosin flux for miniature soldering; after soldering the non-aggressive colorless residue remains, which do not need to be removed
KS5005	RMA	halogen-free "no-clean" (no-need-to-clean) rosin flux for miniature soldering; after soldering the non-aggressive, slightly yellowish residue remains, which do not need to be removed
KS532	RMA	"no-clean" (no-need-to-clean) universal halogen-free rosin flux; after soldering the minimal non-aggressive residue remains, the removal of which is usually not required, except for use at elevated temperatures
KS533	RMA	"no-clean" (no-need-to-clean) universal halogen-free rosin flux; after soldering the colorless, non-aggressive residue remains, the removal of which is usually not required, except for use at elevated temperatures
KS10	RA	resin flux (RA) is highly active, characterized by rapid wetting; after soldering the non-aggressive residue remains, which, if necessary, can be removed with special cleaners

Flux content in solder wire 2.2%