1-8-97

MATERIAL SAFETY DATA SHEET PRODUCT INFORMATION
24 HOUR EMERGENCY #: 1-800-255-3924

'RODUCT NAME: Rework Solder Paste IN TUBE
'RODUCT CODE: (05) S290, S291, S500
'RODUCT USE: Soldering
'HEMICAL FAMILY/FORMULA: Sn-Pb-medium

)ATE ISSUED: 07 OCT 94 DATE REVISED: 31 JUL 95

HAZARDOUS INGREDIENT INFORMATION

NGREDIENT	CAS#	% WT	PEL/OSHA 8 hr.TWA	STEL/SCHIH mg/m3
'IN	7440-31-5	53.5-60.5	2.0	n/d
.EAD	7439-92-1	31.0-35.0	0.05	n/d
'YNTHETIC RESIN	.....	1.0-7.0	0.1(fumes)	n/d
UTYL CARBITOL	112-34-5	0.5-5.0	n/d	n/d
)UTYL DIGLYME**	112-73-2	0.1-2.0	n/d	n/d
'HITE WATER GUM ROSIN	8050-09-7	0.1-1.5	1.0(fumes)	n/d

.....
* LD50: 3.9 g/kg
(rat,ingestion)

PHYSICAL DATA

'HYSICAL STATE	:solid
)DOUR & APPEARANCE	:dark grey paste with mild resinous odor
)DOUR THRESHOLD	:n/d
'PECIFIC GRAV. (H_2O=1)	:8.80 (metal)
'APOR PRESSURE (mmHg)	:n/a
'APOR DENSITY (Air=1)	:n/a
:VAPORATION RATE	:n/a
)OILING POINT (deg C)	:327.5 (lead)
IELTING POINT (deg C)	:183 (metal)
)H	:n/a
: VOLATILE (by volume)	:< 5 %
/ATER/OI[illegible] DISTRIBUTION COEFF.	:n/a
)OLUBILITY IN WATER	:< 13 %
)OLUBILITY IN ALCOHOL	:< 13 %

FIRE AND EXPLOSION HAZARD

'LAMMABILITY	:nonflammable
'LASHPOINT (deg C), METHOD	:n/a
IPPER FLAMMABLE LIMIT (UFL)	:n/a
.OWER FLAMMABLE LIMIT (LFL)	:n/a
:UTO-IGNITION TEMPERATURE	:n/a
:AZARDOUS COMBUSTION PRODUCTS	:n/a

:XPLOSION DATA:
SENSITIVITY TO MECHANICAL IMPACT - not sensitive
SENSITIVITY TO ELECTROSTATIC IMPACT - not sensitive

:XTINGUISHING MEDIA
Dry chemical agent, alcohol foam, carbon dioxide, water mist as last resort.

SPECIAL FIRE FIGHTING PROCEDURES
Firefighters should wear a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.
NFPA HAZARD CLASSIFICATION
not classified
HMIS HAZARD CLASSIFICATION
D2A (LEAD:toxic material having other effects)

REACTIVITY DATA

CHEMICAL STABILITY
Stable in normal conditions. When heated a small amount of organic fumes (CO_2, Co,...) will emit due to the decomposition of the medium.
INCOMPATIBILITY
Halogen trifluorides, oxidizing agents, acids and peroxides
CONDITIONS OF REACTIVITY
n/a
HAZARDOUS DECOMPOSITION PRODUCTS
Over melting point, toxic fumes of lead and tin oxides may be evolved. A small amount of organic fumes will also emit.

PREVENTIVE MEASURES

PERSONNEL PROTECTIVE EQUIPMENT
EYES/FACE:
Safety glasses, goggles or faceshield for all operations.
HANDS/ARMS & BODY:
Vinyl or heat-resistant gloves (handling, soldering)
RESPIRATORY EQUIPMENT:
A NIOSH/MSHA approved respirator for toxic fumes. (i.e., Sn, Pb oxides, CO, CO_2, resin, others...)
VENTILATION:
Local exhaust ventilation is required for all operations where exposure to fumes exists.
PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
A clean-up procedure which minimizes exposure is required. Vacuuming is preferred. Place all material in closed containers. Use approved respirator if exposure to toxic fumes exists.
WASTE DISPOSAL METHOD
Material should be returned to process or salvage. Dispose of only according to government rules and regulations on lead contaminated material.
HANDLING PROCEDURES AND STORAGE REQUIREMENTS
Store in a dry and cool area. Use all necessary equipment when handling (gloves, goggles, etc...). Use approved respirator if ventilation is inadequate.
SPECIAL MEASURES

TOXICOLOGICAL PROPERTIES

INHALATION: ACUTE EXPOSURE (LEAD):paleness, agitation, collapsus, convulsion, shock, kidney dysfunction, blueing of gums. (TIN OXIDES):cough, chills, headaches, fever, vomiting, dyspnea, bronchitis, pneumonitis.
CHRONIC EXPOSURE (LEAD):anemia, hypertension, colics, kidney damage. (TIN OXIDES):benign pneumoconiosis, stannosis.

INGESTION: ACUTE EXPOSURE (LEAD):severe digestive dysfunctions (burns to the esophagus and stomach, vomiting, abdominal pains, diarrhea or constipation.

SKIN: Prolonged and repeated contact with product may cause skin irritations.

EYES: Fumes may irritate the eyes if improper eye protection is used

POSSIBLE EFFECTS:

CARCINOGENICITY

The IARC considers lead as a possible carcinogen for humans.

REPRODUCTION TOXICITY

Based on data, a concentration of lead in the bloodstream due to lead exposure may have damaging effects on reproduction.

TERATOGENICITY

Based on data, a concentration of lead in the bloodstream due to lead exposure may have damaging teratogeniic effects.

MUTAGENICITY

Based on data, a concentration of lead in the bloodstream due to lead exposure may have damaging mutagenic effects.

OTHERS

For more information, consult the section on "Additional Information" and/or the IARC.

FIRST AID MEASURES

INHALATION: Remove individual from exposure. Bring to fresh air. If not breathing, give artificial respiration. SEEK IMMEDIATE MEDICAL HELP.

INGESTION: If individual is conscious, give two (2) to three (3) glasses of water and induce vomiting. Seek PROMPT medical attention.

SKIN: Wash affected areas with soap and water. Rinse thoroughly under running water. If irritation persists, consult a physician.

EYES: Flush open eyes with running water for at least ten (10) minutes.

If irritation persists, repeat the operation and consult a physician.

OTHERS:

ADDITIONAL INFORMATION

Biological monitoring of workers exposed to lead fumes or dust is recommended to prevent undue lead absorption.

LEAD biological index: 50 ug/100 ml whole blood.

REFERENCES:29cfr, PART 1910.1000 & 1910.1025 OSHA'S Permissible Exposure Limits, rev. July 1993; NIOSH, Pocket Guide to Chemical Hazards, rev. June 1994; NFPA, Fire Protection Guide to Hazardous Materials, 11th edition; WHMIS

Toxicological Registry, Classification of Some Chemical Substances (doc. #RT-12); Canada Gazette, part II, Vol. 122, No. 2, Ingredient Disclosure List. Good personal hygiene is essential.

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