

**Safety Data Sheet**

according to UK REACH Regulation

**LFM-48W MR-NH**

Revision date: 16.03.2023

Product code: epos66

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

LFM-48W MR-NH

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Welding and soldering products  
Professional uses, Industrial use.

**1.3. Details of the supplier of the safety data sheet**

Company name:	Almit GmbH	
Street:	Unterer Hammer 3	
Place:	D-64720 Michelstadt	
Telephone:	+49 (0) 6061 969 25 0	Telefax: +49 (0) 6061 969 25 18
e-mail:	info@almit.de	
Contact person:	Qualitätssicherung	Telephone: +49 (0) 6061 969 25 36
e-mail:	info@almit.de	
Internet:	www.almit.de	

**1.4. Emergency telephone number:** +49 6061 969 25 14 Only available during office hours. 9:00 - 16:00 MEZ

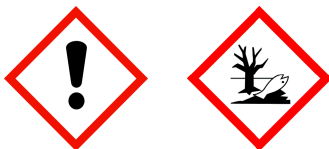
**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Skin Sens. 1; H317  
Aquatic Acute 1; H400  
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation****Hazard components for labelling**

rosin; colophony

**Signal word:** Warning**Pictograms:****Hazard statements**

H317 May cause an allergic skin reaction.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves and eye/face protection.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P391 Collect spillage.

**2.3. Other hazards**

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If handled uncovered, arrangements with local exhaust ventilation have to be used. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Possibility of exposure to: Metal oxide smoke, toxic. metallic oxides containing heavy metals.

Processing vapours can irritate the respiratory tracts, skin and eyes.

Do not breathe gas/fumes/vapour/spray.

The melted product can cause severe burns.

The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
8050-09-7	rosin; colophony			10 - < 15 %
	232-475-7	650-015-00-7		
	Skin Sens. 1; H317			
7440-22-4	Silver			1 - < 5 %
	231-131-3			
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410			
124-04-9	adipic acid			1 - < 5 %
	204-673-3	607-144-00-9		
	Eye Irrit. 2; H319			
7440-50-8	granulated copper			< 1 %
	231-159-6	029-024-00-X		
	Aquatic Acute 1, Aquatic Chronic 2; H400 H411			

Full text of H and EUH statements: see section 16.

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
8050-09-7	232-475-7	rosin; colophony	10 - < 15 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg	
7440-22-4	231-131-3	Silver	1 - < 5 %
		Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=10	

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

#### After inhalation

Provide fresh air. Where appropriate artificial ventilation. Medical treatment necessary.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After contact with molten product, cool skin area rapidly with cold water.

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**After contact with eyes**

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Do not subject to friction.  
Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to an unconscious person or a person with cramps. Medical treatment necessary.

**4.2. Most important symptoms and effects, both acute and delayed**

The melted product can cause severe burns.

**4.3. Indication of any immediate medical attention and special treatment needed**

Burns caused by molten material must be treated clinically.  
Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Fire class: D (Fires of metals)

**Unsuitable extinguishing media**

Water

**5.2. Special hazards arising from the substance or mixture**

Non-flammable. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Hazardous combustion products: Metal oxide smoke, toxic. metallic oxides containing heavy metals. Pyrolysis products, toxic.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Move undamaged containers from immediate hazard area if it can be done safely.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Do not breathe dust. Avoid dust formation. Avoid contact with skin, eyes and clothes.

**For non-emergency personnel**

Remove all sources of ignition. Provide adequate ventilation. Use personal protection equipment. Evacuate area.

**For emergency responders**

Wear personal protection equipment (refer to section 8). Full protection suit.

**6.2. Environmental precautions**

Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up****For containment**

Take up dust-free and set down dust-free. Cover drains.

**For cleaning up**

Take up mechanically, placing in appropriate containers for disposal.  
Use only antistatically equipped (spark-free) tools.

**Other information**

Do not use a dry brush as dust clouds or static can be created.

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#### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

Provide adequate ventilation as well as local exhaust at critical locations. Avoid dust formation. Do not breathe dust. Use personal protection equipment. Avoid contact with skin, eyes and clothes.

##### Advice on protection against fire and explosion

May form explosible dust-air mixture if dispersed. Take precautionary measures against static discharges.

Keep away from sources of ignition - No smoking.

##### Advice on general occupational hygiene

Take off contaminated clothing. Wash hands and face before breaks and after work and take a shower if necessary. Draw up and observe skin protection programme. When using do not eat, drink, smoke, sniff.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

##### Hints on joint storage

Do not store together with: Oxidising substances, Acids, Pyrophoric or self-heating substances.

##### Further information on storage conditions

Keep away from heat.

Protect from moisture.

storage temperature: 0 - 10 °C

Please note the expiry date: 6 month(s)

#### 7.3. Specific end use(s)

Welding and soldering products

(Professional uses, Industrial use.)

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7440-50-8	Copper, dusts and mists (as Cu)	-	1		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL
7440-50-8	Copper, fume	-	0.2		TWA (8 h)	WEL
-	Dust, inhalable	-	10		TWA (8 h)	WEL
-	Dust, respirable	-	4		TWA (8 h)	WEL
8050-09-7	Rosin-based solder flux fume	-	0.05		TWA (8 h)	WEL
		-	0.15		STEL (15 min)	WEL
-	Silver (soluble compounds as Ag)	-	0.01		TWA (8 h)	WEL
7440-22-4	Silver, metallic	-	0.1		TWA (8 h)	WEL
-	Tin compounds, inorganic, except SnH <sub>4</sub> , (as Sn)	-	2		TWA (8 h)	WEL
		-	4		STEL (15 min)	WEL

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#### 8.2. Exposure controls



##### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

##### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear eye/face protection. (EN 166)

##### Hand protection

Wear suitable gloves.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### Skin protection

Wear suitable protective clothing.

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Respiratory protection necessary at: Generation/formation of dust, exceeding exposure limit values.

Type: ABEK-P3

##### Thermal hazards

Additional hand protection measures: heat-resistant

Generation/formation of dust: Flame-retardant protective clothing. Wear anti-static footwear and clothing

##### Environmental exposure controls

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid (pasty)
Colour:	metallic grey
Odour:	odourless
Odour threshold:	not applicable
Melting point/freezing point:	217 - 220 °C
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	Non-flammable.
	particulates and dust: Combustible
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	not applicable
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value:	not applicable
Viscosity / kinematic:	not determined
Water solubility:	practically insoluble
Solubility in other solvents	
not determined	

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Dissolution rate:	not applicable
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density:	not determined
Relative density:	7,4
Relative vapour density:	not determined
Particle characteristics:	not applicable

#### 9.2. Other information

##### Explosive properties

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

##### Other safety characteristics

Solid content: 88 +- 1 %

Viscosity / dynamic: 110000 - 210000 +- 30000 mPa·s  
(at 25 °C)

##### Further Information

Particle size: 10 - 45 µm

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

#### 10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Generation/formation of dust.

Protect from moisture.

#### 10.5. Incompatible materials

Oxidising substances, Acids, Pyrophoric or self-heating substances.

#### 10.6. Hazardous decomposition products

Hazardous combustion products: Metal oxide smoke, toxic. metallic oxides containing heavy metals. Pyrolysis products, toxic.

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in GB CLP Regulation

##### Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
8050-09-7	rosin; colophony				
	oral	LD50 > 2000 mg/kg	Rat	ECHA	OECD 423
	dermal	LD50 > 2000 mg/kg	Rat	ECHA	OECD 402

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**Irritation and corrosivity**

Based on available data, the classification criteria are not met.

**Sensitising effects**

May cause an allergic skin reaction. (rosin; colophony)

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Information on likely routes of exposure**

oral, Skin contact, Eye contact.

Inhalation (dust/mist/Vapour).

**11.2. Information on other hazards****Endocrine disrupting properties**

No information available.

**SECTION 12: Ecological information****12.1. Toxicity**

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

Avoid release to the environment.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

Dispose of waste according to applicable legislation.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

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### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Silver)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

90

Tunnel restriction code:

-

#### Inland waterways transport (ADN)

**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Silver)

**14.3. Transport hazard class(es):**

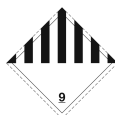
9

**14.4. Packing group:**

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

#### Marine transport (IMDG)

**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Silver)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



Marine pollutant:

P

Special Provisions:

274 335 969

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-A, S-F

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:**

UN 3082

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#### 14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Silver)

#### 14.3. Transport hazard class(es):

9

#### 14.4. Packing group:

III

Hazard label:

9



Special Provisions:

A97 A158 A197 A215

Limited quantity Passenger:

30 kg G

Passenger LQ:

Y964

Excepted quantity:

E1

IATA-packing instructions - Passenger:

964

IATA-max. quantity - Passenger:

450 L

IATA-packing instructions - Cargo:

964

IATA-max. quantity - Cargo:

450 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

Yes



Danger releasing substance:

Silver

#### 14.6. Special precautions for user

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to 2012/18/EU  
(SEVESO III):

E1 Hazardous to the Aquatic Environment

##### National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

3 - highly hazardous to water

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Abbreviations and acronyms

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service

DNEL: Derived No Effect Level

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DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation  
intérieures)  
IMDG: International Maritime Code for Dangerous Goods  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
VOC: Volatile Organic Compounds  
SVHC: Substance of Very High Concern  
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety  
assessment, chapter R.20 (Table of terms and abbreviations).

#### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Skin Sens. 1; H317	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

#### Relevant H and EUH statements (number and full text)

H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.

#### Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*