

Heraeus

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 10.06.2009

Revision: 20.05.2009

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** **Microbond Flux NC 5070**
- **Application of the substance / the preparation** Soldering flux
- **Manufacturer/Supplier:**
W.C. Heraeus GmbH
Heraeusstr. 12-14
D-63450 Hanau
- **Further information obtainable from:**
Contact Materials Division
Business Unit Assembly Materials
Telephone: +49 6181-35 5303
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2 Hazards identification

- **Hazard description:**



Xi Irritant
N Dangerous for the environment

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- R 38 Irritating to skin.
- R 41 Risk of serious damage to eyes.
- R 43 May cause sensitisation by skin contact.
- R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredients

- **Chemical characterization**

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 8050-09-7 EINECS: 232-475-7	Rosin	Xi; R 43 Warning: 3.4.S/1	40-70%
CAS: 94-96-2 EINECS: 202-377-9	2-ethylhexane-1,3-diol	Xi; R 41 Danger: 3.3/1	15-40%
CAS: 141-82-2 EINECS: 205-503-0	malonic acid	Xn, Xi; R 22-36 Danger: 3.1.O/3, 3.3/2A	3-7%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **General information:**

Immediately remove any clothing soiled by the product.

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- Take affected persons out of danger area and lay down.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Protect unharmed eye.
Call a doctor immediately.
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
Can form explosive gas-air mixtures.
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Person-related safety precautions:**
Keep people at a distance and stay on the windward side.
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources.
- **Measures for environmental protection:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **Additional information:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.

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- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

8050-09-7 Rosin

WEL	Short-term value: 0.15 mg/m ³ Long-term value: 0.05 mg/m ³ Sen
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- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
Use suitable respiratory protective device only when aerosol or mist is formed.
Short term filter device:
Filter A/P2
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.35 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

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- **Body protection:** Protective work clothing

9 Physical and chemical properties

· General Information

Form: Pasty
Colour: Colourless
Odour: Solvent-like

· Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 243°C

· **Flash point:** 125°C (DIN 51 758)

· **Ignition temperature:** 215°C (DIN 51 794)

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· Explosion limits:

Lower: 0.7 Vol %

Upper: 5.3 Vol %

· **Vapour pressure at 20°C:** 0 hPa

· **Density at 20°C:** 0.9 g/cm³

· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

· Solvent content:

Organic solvents: 0.0 %

10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· **Dangerous reactions** No dangerous reactions known.

· **Dangerous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· Acute toxicity:

· Primary irritant effect:

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Strong irritant with the danger of severe eye injury.

· Sensitization:

Sensitizing effect by skin contact is possible by prolonged exposure.

Sensitization possible through skin contact.

· Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

· **Sensitisation** May cause sensitisation by skin contact.

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12 Ecological information

- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **General notes:**
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:**
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** 8 Corrosive substances.
- **Danger code (Kemler):** 80
- **UN-Number:** 2735
- **Packaging group:** II
- **Hazard label:** 8
- **Maritime transport IMDG:**
- **IMDG Class:** 8
- **UN Number:** 2735
- **Label** 8
- **Packaging group:** II
- **Marine pollutant:** No
- **Proper shipping name:** POLYAMINES, LIQUID, CORROSIVE, N.O.S. (COCONUT FATTY ACID, ETHOXYLATED)
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2735
- **Label** 8
- **Packaging group:** II
- **Proper shipping name:** POLYAMINES, LIQUID, CORROSIVE, N.O.S. (COCONUT FATTY ACID, ETHOXYLATED)

15 Regulatory information

- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**
Xi Irritant
N Dangerous for the environment

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- **Hazard-determining components of labelling:**

Rosin

- **Risk phrases:**

38 Irritating to skin.

41 Risk of serious damage to eyes.

43 May cause sensitisation by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Safety phrases:**

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

24/25 Avoid contact with skin and eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant R-phrases**

22 Harmful if swallowed.

36 Irritating to eyes.

41 Risk of serious damage to eyes.

43 May cause sensitisation by skin contact.

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Reglement internationale concernent le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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