

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 27.11.2012

Revision: 3

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **Date of compilation:** 14.10.2011
- **1.1 Product identifier**
- **Trade name:** Flux 396-DRM 396-DRX-M+
- **Article number(s):** bz042
- **Synonym(s):** Flussmittel 396-DRM 396-DRX-M+
- **1.2 Relevant identified uses of the substance or mixture and uses advised against:**
No further relevant information available.
- **Application of the substance / the mixture:** Flux for soft soldering
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**
Balver Zinn
Josef Jost GmbH & Co.KG
Blintroper Weg 11
D-58802 Balve · Germany
Phone: +49 2375 915 – 0
Fax: +49 2375 915 – 114
E-Mail: Info@BalverZinn.com
- **Manufacturer:**
Cobar Europe BV
Aluminiumstraat 2
NL-4823 AL Breda · Netherlands
Phone: +31 76 5445566
Fax: +31 76 5445577
E-Mail: Info@Cobar.com
- **E-mail address of the competent person responsible for the Safety Data Sheet:** kontakt@trabaserio.eu
- **Informing department:** Technical Support of the Supplier
- **1.4 Emergency telephone number:** Giftnotruf Berlin +49 30 / 30686 790 - Helpdesk in German and English

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC void**
- **2.2 Label elements**
- **Labelling according to EU guidelines:**
The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.
- **Special labelling of certain preparations:**
Safety data sheet available for professional user on request.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** not applicable
- **vPvB:** not applicable

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SECTION 3: Composition/information on ingredients

- 3.2 Mixtures
- **Description:** Aqueous solution

- **Dangerous components:**

CAS: 124-04-9 EINECS: 204-673-3 Index number: 607-144-00-9	Adipic acid	 Xi R36  Eye Irrit. 2, H319	≤2.5%
CAS: 110-94-1 EINECS: 203-817-2	Glutaric acid	 Xi R36  Eye Irrit. 2, H319	1.5 - 3.0%

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

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- **General information:** Remove contaminated clothing.
- **After inhalation:** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact:**
The product is not skin irritating.
Rinse with plenty of water.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting - Danger of chemical pneumonia.
In case of persistent symptoms consult doctor.
- 4.3 Indication of any immediate medical attention and special treatment needed
Subsequent observation for pneumonia and pulmonary oedema.
- **Information for doctor:** Treat symptomatically.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- **Suitable extinguishing agents** Product does not burn - take extinguishing measures according to fire conditions.
- **For safety reasons unsuitable extinguishing agents** void
- 5.2 Special hazards arising from the substance or mixture:
Can be released in case of fire:
Irritant gases/vapours
Carbon monoxide (CO) and Carbon dioxide (CO₂)
- 5.3 Advice for firefighters
- **Protective equipment:** Put on breathing apparatus.
- **Additional information:**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
Keep people at a distance and stay on the windward side.
- 6.2 Environmental precautions: Do not allow to enter drainage system, surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable containers.
Dispose of the material collected according to regulations.

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- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Do not inhale vapours/aerosols.
Avoid contact with eyes.
Avoid prolonged or repeated skin contact.
- **Information about protection against explosions and fires:** The product is not flammable.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
Observe all local and national regulations for storage of water polluting products.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with critical values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **DNELs not applicable**
- **PNECs not applicable**
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.
Do not eat, drink or smoke while working.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes.
Avoid close or long term contact with the skin.
Be sure to clean skin thoroughly after work and before breaks.
Use skin protection cream for preventive skin protection.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**
Protective gloves and protective skin cream.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
Check the permeability prior to each renewed use of the glove.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
To avoid skin problems reduce the wearing of gloves to the required minimum.
- **Material of gloves**
Nitrile rubber - NBR
Recommended thickness of the material: ≥ 0.11 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.

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- **Penetration time of glove material**
Permeation time: ≥ 480 min. (EN 374)
Value for the permeation: Level ≥ 6
Protective gloves should be replaced at first signs of wear.
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses recommended during soldering works.
- **Body protection:** Protective clothing should be selected specifically for the working place.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: liquid
Colour: colourless
clear

· **Smell:** odourless

· **Odour threshold:** not applicable

· **pH-value:** not determined

· Change in condition

Melting point/Melting range: not applicable

Boiling point/Boiling range: 100 °C

· **Flash point:** not applicable

· **Inflammability (solid, gaseous)** not applicable

· **Ignition temperature:** not applicable

· **Decomposition temperature:** no data available

· **Self-inflammability:** The product/the substance is not selfigniting.

· **Danger of explosion:** Product is not explosive.

· Critical values for explosion:

Oxidizing properties Not classified as oxidising.

· **Vapour pressure at 20 °C:** ~23 mbar

· **Density at 20 °C** 1.007 - 1.012 g/cm³ ($\pm 0,5\%$)

· **Settled apparent density** not applicable

· **Vapour density (AIR = 1)** not determined

· **Evaporation rate** not determined

· Solubility in / Miscibility with

Water: fully miscible

· **Organic solvents:** not determined

· **Partition coefficient (n-octanol/water):** no data available

· Viscosity:

dynamic: not determined

kinematic: not determined

Organic solvents: 0.99 %

Water: 94.5 - 96.4 %

VOC (EU) 0.08 - 0.99%

VOCV (CH) 0.00%

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· 9.2 Other information

See technical data sheet.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **Chemical stability** Stable, under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Irritant gases/vapours
Carbon monoxide (CO) and Carbon dioxide (CO₂)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:****110-94-1 Glutaric acid**

Oral	LD50	6000 mg/kg (mouse)
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124-04-9 Adipic acid

Oral	LD50	~5700 mg/kg (rat)
Dermal	LD50	> 7940 mg/kg (rabbit)
Inhalative	LC50/4 h	> 7.7 mg/l (rat) (BASF-Test)

- **Primary irritant effect:**
- **on the skin:** No irritant effect known.
- **on the eye:** Short time, reversible irritating effect.
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**
The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version.
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
According to present knowledge no CMR-effects known.

SECTION 12: Ecological information

- **12.1 Toxicity**

· **Aquatic toxicity:****110-94-1 Glutaric acid**

EC50/48 h	88.4 mg/l (water flea (daphnia magna))
IC50/96 h	35 mg/l (algae (desmodesmus subspicatus))

124-04-9 Adipic acid

EC50/3 h	7.911 mg/l (pseudomonas putida)
EC50/48 h	86.5 mg/l (water flea (daphnia magna))
EC50/72 h	31.3 mg/l (algae (scenedesmus subspicatus))
LC50/48 h	100 - 511 mg/l (leuciscus idus)

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LC50/96 h 88 - 97 mg/l (fathead minnow (pimephales promelas))

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**

· **Behaviour in sewage processing plants:****110-94-1 Glutaric acid**

EC10 63 mg/l (pseudomonas putida)

124-04-9 Adipic acid

EC50/17 h 91.9 mg/l (pseudomonas putida)

- **Additional ecological information:**
- **Chemical Oxygen Demand (COD-value):** not determined
- **BOD5-value:** not determined
- **AOX-indication:** The product does not contain organically bounded halogens (AOX-free).
- **According to recipe contains the following heavy metals and compounds according to EC guideline NO. 76/464 EC:**
The product does not contain heavy metals.
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Water hazard class 1 (Self-assessment): slightly hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** not applicable
- **vPvB:** not applicable
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**



Disposal must be made according to official regulations.

- **Waste disposal key number:** According to local/national regulations.

· **European waste catalogue:**

16 10 02 aqueous liquid wastes other than those mentioned in 16 10 01

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, ADN, IMDG, IATA** Void
- **14.2 UN proper shipping name**
- **ADR, ADN, IMDG, IATA** Void
- **14.3 Transport hazard class(es)**
- **ADR, ADN, IMDG, IATA**
- **Class** Void

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· 14.4 Packing group	
· ADR, IMDG, IATA	Void
· Environmental hazards:	not applicable
· Marine pollutant:	NO
· 14.6 Special precautions for user:	not applicable
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	not applicable
· Additional Transport information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	-

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Designation according to EC guidelines:**
The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.
- **Special designation of certain preparations:**
Safety data sheet available for professional user on request.
- **National regulations**
- **Decree to be applied in case of technical fault:** Directive 96/82/EC does not apply.
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment by the supplier has not been carried out yet.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Reasons for changes:**
The Material Safety Data Sheet has been revised. Changes in the respective chapters are characterized in the left side edge by *.
- **Relevant phrases:**
H319 Causes serious eye irritation.
R36 Irritating to eyes.
- **Department issuing MSDS:**
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C./Isabel II, N° 67, Pl. Baja A
07100 Sóller / Spain
Tel. & Fax: +34 971 63 34 64 · E-Mail: kontakt@trabaserio.eu
- **Abbreviations and acronyms:**
RID: Règlement concernant le transport international ferroviaire des marchandises dangereuses (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
GGVSEB (Gefahrgutverordnung Straße, Eisenbahn und Binnenschifffahrt): Ordinance on the national and international carriage of dangerous goods by road, rail, and inland waterways
ADR: Accord Européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CLP: Regulation on Classification, Labelling and Packaging of Substances and Mixtures

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*DNEL: Derived No-Effect Level (REACH)**PNEC: Predicted No-Effect Concentration (REACH)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent***· * Data compared to the previous version altered.**

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