

SAFETY DATA SHEET

according to 1907/2006/EC, article 31

**CB 105 DINP 70, CB 180 DINP 70, CB 180S DINP 70, CBright 180S
DINP 70, CB 200S DINP 70, CB 400 DINP 70, CB 600 DINP 70, CB 45-B
DINP 70, CB 58-B DINP 70**



Revision date: 2017-03-10

Version: 5, revision 4

Replace: 2015-06-01

SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Product name: CB 105 DINP 70, CB 180 DINP 70, CB 180S DINP 70, CBright 180S DINP 70,
CB 200S DINP 70, CB 400 DINP 70, CB 600 DINP 70, CB 45-B DINP 70, CB
58-B DINP 70

Substance: ALUMINIUM PASTE IN DIISONONYL PHTHALATE

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

Identified uses: Aluminium powder: Chemical reactant/physical function, coatings, inks, colorants, metallurgical uses, powder metallurgy, tools manufacturing, refractory, powder applications, building and construction products, consumers articles, kitchen utensils, packaging-food and beverages, packaging - non food and beverages.

Diisononyl phthalate: Industrial use.

1.3 Details of the supplier of the safety data sheet.

Manufacturer: CARLFORS BRUK AB
BOX 44
SE-561 21 HUSKVARNA SWEDEN
Tel: +46 36389500
Fax: +46 36141754
E-mail: cb@carlfors.se

1.4 Emergency telephone number.

Emergency number: +46 8337043

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

Classification according to: CLP/GHS EC No 1272/2008.

Not classified.

Note T regulation (EC) No 1272/2008: This product may be marketed in a form which does not have the physical hazards as indicated in the entry in part 3. Tests were done according to Transport of dangerous goods, Manual of tests and criteria.

Additional Information: See section 16.

2.2 Label elements:

Label elements according to Regulation (EC) No 1272/2008 (CLP).

Hazard pictograms:

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Signal word:

Hazard Statements:

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P370 + P378 In case of fire: Use sand, mineral wool or special powder for metal fire, never use water, halones,
foam or carbon dioxide.
P402 + P404 Store in a dry place. Store in a closed container.

2.3 Other hazards:

No additional information available.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

| Chemical name | Cas-no: | Einecs no: | REACH registration no: | Contents % |
|--------------------------|--------------------|------------|------------------------|------------|
| Aluminium powder | 7429-90-5 | 231-072-3 | 01-2119529243-45-0051 | 68-72 |
| GHS/CLP-classification:* | Flam. Sol. 1, H228 | | | |

| Chemical name | Cas-no: | Einecs no: | REACH registration no: | Contents % |
|--------------------------|------------|------------|------------------------|------------|
| Diisononyl phthalate | 28553-12-0 | 249-079-5 | 01-2119430798-28-xxxx | 28-32 |
| GHS/CLP-classification:* | - | | | |

* See section 16.

SECTION 4. FIRST-AID MEASURES

4.1 Description of first aid measures:

General information: No additional information available.

Inhalation: Fresh air and rest.

Skin contact: Take of contaminated clothes, wash skin with water and soap.

Eye contact: Remove any contact lenses. Rinse immediately with plenty of water, also under the eyelids. Call doctor if irritation persists.

Ingestion: Don't induce vomiting. Call doctor. Rinse mouth with water.

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4.2 Most important symptoms and effects, both acute and delayed: No further relevant information.

4.3 Indication of any immediate medical attention and special treatment needed: No further relevant information available.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing agents: Extinguish fire with sand and mineral wool. Can also be extinguished with foam or carbon dioxide during the first minutes when the solvent in the aluminium paste is burning. After a short time, when the solvent has burned, it is a metal fire, and then only use sand, mineral wool or special powder for metal fires.

Unsuitable extinguishing agents: Do not use water.

5.2 Special hazards arising from the substance or mixture: No further relevant information available.

5.3 Advice for firefighters: No special measures required.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Eliminate fire risk by keeping ignition sources out of the area.

6.2 Environmental precautions:

Do not allow product to reach sewage system or water resources. Inform authorities in case product reaches water or sewage system.

6.3 Methods and material for containment and cleaning up:

Collect mechanically. Absorb with liquid binding material (sand, diatomite, universal binders, sawdust) and put in a dry receptacle. Do not flush with water or aqueous cleaning agents. Dispose of waste material in accordance with local, state or federal regulations.

6.4 Reference to other sections:

See section 8 for protective equipment. See section 13 for waste treatment methods.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Good ventilation. Mechanical ventilation and local exhaust can be needed. Keep drums closed as far as possible. Avoid direct contact with aluminium paste. No smoking, fire, sparks or welding. Prevent sparks arising from static electricity.

Wash hands during breaks and at the end of the work. Keep away from foodstuffs, beverages and feed. Do not eat, drink, smoke or sniff while working. Water for eye flushing to be available.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool, dry place in tightly closed containers. Keep away from sources of ignition-No smoking.

7.3 Specific end use(s):

See section 1, identified uses.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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8.1 Control parameters:

DNEL long-term, worker, for aluminium metal powder/dust is 3,72 mg aluminium/m³.
PNEC-values from 46-17800 µg/l depending on water chemistry.

DNEL long-term (repeated) worker for DINP: Inhalation 51,72 mg/m³. Dermal 366 mg/kg bw/day.
PNEC for DINP: 30 mg/kg soil dw.

Occupational exposure limits (limit value - eight hours):

| | Aluminium powder | Diisononyl phthalate |
|-----------------|---|----------------------|
| Austria | 10 mg/m ³ | |
| Canada - Québec | 10 mg/m ³ | |
| Denmark | 5 mg/m ³ (inhalable aerosol) 2 mg/m ³ (respirable) | 3 mg/m ³ |
| France | 10 mg/m ³ (inhalable aerosol) 5 mg/m ³ (respirable aerosol) | |
| Germany | 4 mg/m ³ (inhalable aerosol) 1,5 mg/m ³ (respirable aerosol) | |
| Hungary | 6 mg/m ³ (respirable aerosol) | |
| Spain | 5 mg/m ³ (respirable aerosol) 10 mg/m ³ (inhalable aerosol) | |
| United Kingdom | 4 mg/m ³ (respirable aerosol) 10 mg/m ³ (inhalable aerosol) | 5 mg/m ³ |
| USA | 15 mg/m ³ (total dust) 5 mg/m ³ (respirable dust) | |

8.2 Exposure controls:

General protective and hygienic measures: Wash hands during breaks and at the end of the work. Keep away from foodstuffs, beverages and feed. Do not eat, drink, smoke or sniff while working.

Personal protective equipment:

Breathing equipment: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements. Mask with filter for organic vapors.

Protection of hands: Protective gloves of for example PVC, Butyl rubber or nitrile rubber . Change protective gloves regularly.

Eye protection: Protective goggles if there is a risk of splashing.

Skin protection: Protective clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

* Refer to diisononyl phthalate

9.1 Information on basic physical and chemical properties:

Appearance Paste , gray

Odour * Slight odor

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| | |
|---|------------------------------------|
| Odour threshold | * No information |
| pH | NA |
| Melting point/freezing point (°C) | * - 54 |
| Initial boiling point/boiling range (°C) | * 270-280 |
| Flash point (°C) | * 200 |
| Evaporation rate | * No information |
| Flammability (solid, gas) | Not classified as flammable solid. |
| Upper/lower flammability/explosive limits | * No information |
| Vapour pressure (kPa) | * No information |
| Vapour density (air=1) | * No information |
| Density (g/cm ³) | 0,8-1,2 (Density = volume weight) |
| Solubility in water (weight-%) | * Soluble in water. |
| Partition coefficient, log Pow | * 8,8 - 9,7 |
| Auto-ignition temperature (°C) | * 400 |
| Decomposition temperature (°C) | * No information |
| Viscosity | NA |
| Explosive properties | No |
| Oxidising properties | No |
| 9.2 Other information: | No additional information. |

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity:

Not classified as flammable solid.

10.2 Chemical Stability:

The product is stable if used and stored according to specifications.

10.3 Possibility of hazardous reactions:

Hydrogen development with water, alkali and acid.

10.4 Conditions to avoid:

Keep away from sources of ignition and heat.

10.5 Incompatible material:

Reacts with alkalis, acids, water and oxidizing agents.

10.6 Hazardous decomposition products:

No dangerous decomposition products known.

SECTION 11. TOXICOLOGICAL INFORMATION

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11.1 Information on toxicological effects:

Aluminium powder: Oral LD50 (rat) > 2000 mg/kg bw. Inhalation LC50 (rat) > 888 mg/m³. Inhalation NOAEC (rat) = 10 mg/m³.

DINP: LD50 oral (rat) > 10000 mg/kg bw. LD50 dermal (rabbit) > 3160 mg/kg bw. LC50 inhalation (rat 4 h) > 4,4 mg/L air.

Inhalation: No effects known

Skin contact: No effects known.

Eyes: May cause smart.

Ingestion: No effects known.

The symptoms above refer to diisononyl phthalate, which is a part of the aluminium paste.

Aluminum powder and diisononyl phthalate is not carcinogenic, mutagenic or toxic to reproduction.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity:

Aluminium powder and diisononyl phthalate is not classified as dangerous for the environment.

Diisononyl phthalate acute toxicity:

Fish LC50 96 h:> 102 mg / L

EC50 Daphnia 24 h:> 74 mg / L

EC50 Algae 72 h:> 88 mg / L

The product aluminium paste in diisononyl phthalate is not classified as dangerous for the environment.

12.2 Persistence and degradability:

No information

12.3 Bioaccumulative potential:

No information.

12.4 Mobility in soil:

Aluminium paste is a solid material and is not expected to penetrate into the soil.

12.5 Results of PBT and vPvB assessments:

This product is not, or does not contain, a substance that is a PBT or a vPvB.

12.6 Other adverse effects:

No additional information available.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Dispose of waste material in accordance with local, state or federal regulations. Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

European waste catalogue: 12 01 04 – Non-ferrous metal dust and particles.

Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning.

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SECTION 14. TRANSPORT INFORMATION

| | ADR/RID | IATA | IMDG |
|---------------------------------|---------|------|------|
| 14.1 UN No | | | |
| 14.3 Transport hazard class(es) | | | |
| 14.4 Packing group | | | |
| EmS No | | | |
| Tunnel category | | | |

Not classified as dangerous goods.

14.2 UN proper shipping name:

14.5 Environmental hazards: No

14.6 Special precautions for user:

Handling and storage according to section 7.

14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code:

NA

SECTION 15. REGULATORY INFORMATION

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

Reference: EC no. 1907/2006, EC no. 1272/2008, EC no. 453/2010, (EU) 2015/830, IFA-databases on hazardous substances (GESTIS), CSR for aluminium and Material safety data sheet for diisononyl phthalate.

15.2 Chemical safety assessment: No

SECTION 16. OTHER INFORMATION

H228 Flammable solid.

Flam. Sol. 1 = Flammable solid, category 1

List of abbreviations

ADR Accord Européen relatif au transport international des marchandises dangereuses par Route.

CAS No. Chemical abstracts service number.

CLP Regulation on Classification, Labelling and packaging of Substances and Mixtures.

CSR Chemical safety report

DNEL Derived NO-Effect Level.

EINECS European Inventory of Existing Commercial Substances.

EWC European Waste Catalogue.

IATA International Air Transport Association

ICAO International Civil Aviation Organization

IMDG International Maritime Dangerous Goods

IMO International Maritime Organization

LC Lethal Concentration

LD Lethal Dose

Marpol International Convention for the Prevention of Pollution from ships.

NOAL No observable adverse effect level.

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NOEL/NOEC No observed – effect level/concentration.

PBT Persistent, biaccumulative, toxic.

PNEC Predicted No-Effect Concentration.

REACH Registration, Evaluation, Authorisation, and restriction of Chemicals.

RID Règlement concernant le transport international ferroviaire de marchandises dangereuses.

TWA Time-weighted average.

vPvB Very persistent, very biaccumulative

Revision has been done under following points 4, 5, 8, 9, 11, 12 and 16. Take the place of 2015-06-01.