

## SAFETY DATA SHEET

according to 1907/2006/EC, article 31

CB 16 PAR 80, CB 32 PAR 80, CB 38 PAR 85, CB 42 PAR 85, CB 49 PAR 85, CB 60 PAR 85, CB 75 PAR 85, CB 95 PAR 85, CB 135 PAR 85, CB 240 PAR 85, CB 5212 PAR 85



Revision date: 2017-03-24  
Version: 3, revision 2  
Replace: 2015-06-01

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

#### 1.1 Product identifier

Product name: CB 16 PAR 80, CB 32 PAR 80, CB 38 PAR 85, CB 42 PAR 85, CB 49 PAR 85, CB 60 PAR 85, CB 75 PAR 85, CB 95 PAR 85, CB 135 PAR 85, CB 240 PAR 85, CB 5212 PAR 85

Substance: ALUMINIUM PASTE

#### 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.

#### 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  
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:

Prolonged contact with water results in formation of the flammable gas, hydrogen.

## 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	80-85
GHS/CLP-classification:*	Flam. Sol. 1, H228			

Chemical name	Cas-no:	Einecs no:	REACH registration no:	Contents %
Paraffin oil	8042-47-5	232-455-8	01-2119487078-27-xxxx	15-20
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.

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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:

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

#### 8.1 Control parameters:

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

### Occupational exposure limits ( limit value - eight hours):

	Aluminium powder
Austria	10 mg/m <sup>3</sup>
Canada - Québec	10 mg/m <sup>3</sup>
Denmark	5 mg/m <sup>3</sup> (inhalable aerosol) 2 mg/m <sup>3</sup> (respirable)
France	10 mg/m <sup>3</sup> (inhalable aerosol) 5 mg/m <sup>3</sup> (respirable aerosol)
Germany	4 mg/m <sup>3</sup> (inhalable aerosol) 1,5 mg/m <sup>3</sup> (respirable aerosol)
Hungary	6 mg/m <sup>3</sup> (respirable aerosol)
Spain	5 mg/m <sup>3</sup> (respirable aerosol) 10 mg/m <sup>3</sup> (inhalable aerosol)
United Kingdom	4 mg/m <sup>3</sup> (respirable aerosol) 10 mg/m <sup>3</sup> (inhalable aerosol)
USA	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (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 A2 or A2/P2.

**Protection of hands:** Use gloves when direct contact.

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

**Skin protection:** Protective clothing.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Paste , silver grey
Odour	Mild
Odour threshold	No information
pH	NA
Melting point/freezing point (°C)	No information
Initial boiling point/boiling range (°C)	643

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Flash point (°C)	> 100
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 <sup>3</sup> )	1,85-2,07
Solubility in water (weight-%)	Insoluble
Partition coefficient, log Pow	No information
Auto-ignition temperature (°C)	No information
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

#### 11.1 Information on toxicological effects:

Aluminium powder: Oral LD50 (rat) > 2000 mg/kg bw. Inhalation LC50 (rat) > 888 mg/m<sup>3</sup>. Inhalation NOAEC (rat) = 10 mg/m<sup>3</sup>.

Paraffin oil: Oral LD50 (rat) > 5000 mg/kg body weight.

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Inhalation: No adverse effects are anticipated from single exposure to vapor.

Skin contact: No irritant effect.

Eyes: May cause smart.

Ingestion: No specific data.

Aluminum powder and paraffin oil is not carcinogenic, mutagenic or toxic to reproduction.

**SECTION 12. ECOLOGICAL INFORMATION**

**12.1 Toxicity:**

Aluminium powder and paraffin oil is not classified as dangerous for the environment.

Paraffin oil: LC50 96 h (fish – lepomis macrochirus):> 10 000 mg / l

**12.2 Persistence and degradability:**

No information.

**12.3 Bioaccumulative potential:**

Paraffin oil: Partition coefficient n-octanol/water > 6

**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 affects:**

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.

**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.

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### 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 paraffin oil.

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.

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 5, 8, 11, 12 and 16. Take the place of 2015-06-01.