SAFETY DATA SHEET

Prepared in accordance with Annex II of Regulation REACH / EU / 1907/2006, Regulation /EC/ 1272/2008 and Regulation /EC/ 453/2010

Manufacturer: CALCIT JSC
Asenovgrad
VAT: 115005545

Date: 10.11.2010
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Pages: 7

CALCIUM CARBIDE

1. Name of the substance/ chemical and the company/ factory.

1.1. Name of the substance/ chemical

Name of the substance/ chemical: Calcium acetylide
Synonyms: Calcium carbide
Chemical name and formula: Calcium acetylide – CaC_2
Trade name: Calcium carbide
CAS Number: 75-20-7
EINECS Nº: 200-848-3
INDEX Number: 006-004-00-9
Molecular weight: 64
Registration number according to REACH: 01-2119494719-18-004

1.2. Usage of the substance/ chemical

1.2.1. The raw material is for industrial usage only – an intermediate product for the production of acetylene and cyanamide, in the metallurgy as an intermediate product for the production of articles.

1.2.2. It is not used by professional workers or final customer.

1.2.3. Usage which is not recommended
- by professional workers
- by final customers – in carbide lamps

1.3. Name and address of the producer/ importer

Name: Calcit JSC
Address: 4230 Asenovgrad
Industrial area “North”
Telephone: 033162723, 033163300
Fax: 033167426
E-mail: office@calcit-bg.com
Web: www.calcit-bg.com

1.4. Emergency telephone

European emergency phone number: 112
Company emergency number during holidays and days off: 033165114

2. Hazard identification

2.1. Classification of the chemical

2.1.1. Classification in accordance with Regulation EC 1272/2008

When there is a contact with water, it gives off flammable gases. Danger category 1.
It causes skin irritations. Danger category 2.
It can cause serious damages to the eyes. Danger category 1.
It can cause irritations of the respiratory tract. Danger category 3.

2.1.2. Classification according to Directive 67/548 EEC

F – Highly flammable

2.2. Labelling

2.2.1. Labelling according to Regulation EC 1272/2008

Signal word: Danger
Danger pictograms:
CHS02: Flame
CHS05: Corrosion
CHS07: Exclamation mark

Danger warnings:
H260 – When there is a contact with water, it gives off gases that can ignite spontaneously
H315 – It causes skin irritations Danger category 2.
H318 – It causes serious damages to the eyes. Danger category 1.
H335 - It can cause irritations of the respiratory tract. Danger category 3.

Safety recommendations:
P312 – If you don't feel well, call a toxicology center or a doctor.
P405 – Keep it locked.
P403+P233 – Keep it in an airy place. The container should be tightly locked.
P304+P340 – If someone inhales it take this person outside and put in a position that will make the breathing easier.
P261 – Avoid inhaling of dust/ smoke/ gas/ fog/ fumes/ aerosols.
P271 – It should be used outdoors or in a well aired place.
P362 – Take off the dirty clothes and washed them before the second usage.
P332+P313 – If there is a skin irritation ask for a medical help.
P302+P352 – When there is a contact with the skin, wash thoroughly with soap and water.
P264 – The skin should be washed carefully after usage.
P501 – The substance/ the container should be thrown away in accordance with the national law for keeping the waste.
P310 – Call immediately a toxicology center or a doctor.
P305+P351+P338 – When there is an eye contact, wash carefully with water for several minutes. Remove the contact lenses if there are such and if it is possible. Continue washing.
P402+P404 – Keep it in a dry place. Keep it in a closed container.
P335+P334 – Remove the bits form the skin. Put in cool water and make some wet compresses.
P280 – Use protective gloves, clothes, glasses and face mask.
P231+P232 – Use it under inert gas. Keep away form humidity.
P223 – Avoid any contact with water because of the strong reaction and the possibility of a sudden ignition.
P370+P378 – In cases of a fire use CO2 or powder fire extinguishers.

2.2.2. Labelling according to Directive 67/548 EEC

Danger indication
F - Highly flammable

Risky phrases:
R 15 - When there is a contact with water, it gives off gases that can ignite spontaneously

Warning phrases:
S 2 – Keep it away from children.
S 8 – The container should be kept in a dry place.
S 43 - In cases of a fire use powder fire extinguishers, CO2 fire extinguishers or sand. Never use water!

3. Composition of the substance.

3.1. General characterization of the chemicals and their percentage.

Calcium carbide – CaC_2 – 80%. Name of the substance number according to EINECS or ELINCS: calcium carbide, EINECS number 200-848-3, CAS number 75-20-7, INDEX number 006-004-00-9

The commercial calcium carbide usually contains calcium oxide in solid solution and it doesn't react to the carbon particles.

3.2. Admixtures.

There are no admixtures connected to the classification and tagging.

4. First aid measures

4.1. Description of the first aid measures

When there is a contact with the eyes

Wash immediately the ways with running water for 15 minutes, including the area under the eyelids. If there are contact lenses, remove them. If the irritation continues, contact a doctor.

When it is inhaled

The person injured should be carried outside and put them in a position that will make the breathing easier. Contact a doctor.

When it is swallowed

Do not cause vomiting. Wash your mouth with vinegar to prevent an irritation of the throat. Contact immediately a doctor.

When there is a contact with the skin

Brush carefully the affected body parts in order to remove all the trails of the product. Wash the skin with vinegar to neutralize the alkalescence. Wash with soap and water. If the skin is still irritated, contact a doctor.

4.2. The most important symptoms and effects:

The calcium carbide is not highly toxic. It is classified as a chemical causing skin irritation and irritation of the respiratory tract. It can cause serious damages to the eyes. There are no continuous systematic injuries, because the ma the local effects are the main health danger.

4.3. Special means for first aid at the working place.

See section 4.1

5. Measures for fire extinguishing

5.1. Flammability

When the product is in dry condition it is not flammable but when it contacts with water, it gives off acetylene, which is highly flammable gas. When it contacts with acids, highly flammable fumes are given off.

5.2. Appropriate means for fire extinguishing

Use powder fire extinguishers, CO_2 fire extinguishers or just dry sand. Do not use water or foam under any circumstances.

5.3. Specific dangers related to the exposition of the substance and the burning products.

Unknown risk when forming pyrolytic products.

5.4. Special protective equipment for the firefighters.

Wear fireproof working overalls and breathing apparatuses.

5.5. Additional information.

The waste products left form the fire extinguishing /sand, dust/ should be treated in accordance with law for working with waste.

6. Measures in cases of emergency emissions.

6.1. Personal protective measures.

Ventilation – enough ventilation should be provided in order to avoid the dust and accumulation of acetylene.

Protective gloves – wear cotton standard gloves.

Protective glasses – wear standard protective glasses.
Working clothes – cotton trousers, long-sleeved shirt.
Protection of the respiratory tract – dusk masks and breathing apparatuses.
Do not smoke!
Do not use devices with an ignition spark!

6.2. Measures for environmental protection.

Do not throw it into surface or groundwater or into the drainage.
If it is poured out, it should be immediately collected in a dry metal container, to be carried into a dry, covered storehouse with suitable ventilation and to be used in the production at the first chance.
If it is poured into wet soil, isolate the area, limit the access of water. It should not be touched until it stops burning and results in calcium hydroxide.
Do not smoke!

6.3. Cleaning means

Keep the material dry. The product should be collected mechanically in a dry way in dry open metal containers. Avoid raising dust. The waste should be kept in accordance with the national laws.

7. Work with the substance/ chemical and storage.

7.1. Work with the substance/ chemical

7.1.1. Protective measures for safe work with the substance/ chemical

In covered, dry and well-ventilated rooms. Avoid the dust and the accumulation of acetylene. Do not smoke! Do not use devices with an ignition spark!

7.2. Storage

7.2.1. Protective measures for safe storage

Keep it in dry, covered and well-ventilated storehouses in closed metal tanks or containers. Avoid breaking and sagging of the metal tanks. The tanks and containers should be placed on high platforms to prevent an eventual contact with water. Do not smoke. Do not use devices with an ignition spark. Store it in its original packs which should be closed. Do not store it near acids, acidic evaporations or oxidizing agents. Keep it away from static electricity.

8. Exposition control and personal protective means

8.1. Exposition limits

8.1.1. CAS number/ EINECS number
75-20-7, 200-848-3
8.1.2. Chemical name
Calcium carbide
8.1.3. Exposition standards in a working environment.
Exposition scenarios during inhalation – 1 mg/m^3
Exposition scenarios when there is a contact with the skin – not defined.

8.2. Exposition control.

8.2.1. Exposition control in a working environment.

The working systems should be either closed or there should be proper ventilation installed so that the dust level is low.

8.2.1.1. Protection of the respiratory tract.

Suitable dust masks and apparatuses should be used if the cases when the dust level is high.

8.2.1.2. Hands protection.

People should wear gloves made of PVC, rubber, neoprene and they should be with a CE-marking.

8.2.1.3. Eye protection.

People should wear tightly fitted glasses with side screens. While working with the product, you should not wear contact lenses.

8.2.1.4. Skin and body protection.

People should wear clothes that cover the body completely – long trousers, long-sleeved overalls, their openings should fit tightly; shoes resistant to rusting chemicals, they should not be pervious to dust.

8.2.1.5. General protective and hygienic measures.

People should bring clean and dry personal protective means; they should use protective cream for their face, neck, wrists. They should take a shower if necessary.

8.2.2. Controlling the effect of the substance/ chemical on the environment.

All the ventilation systems towards the atmosphere should have filters. The flood should be collected and poured into containers. The area should be covered in order to avoid the accumulation of dust. There should be no floods into the sewerage, into surface and underground water and water sources.

9. Physical and chemical properties.

9.1. General information.

9.1.1. Physical characteristics

Hard, color – grey to dark blue, lumps of irregular shape.

9.1.2. Smell.

Typical smell.

9.2. Important information regarding human health and safety and the environment.

pH – not defined.

Water solubility – when there is a contact with water there is a strong reaction and it breaks down to acetylene and calcium hydroxide and a huge amount of heat is given off.

9.3. Information about physical and chemical characteristic data.

Melting point – 1900 – 2000 º C

Boiling point – above 2000 º C

Specific weight – 2.24 g/cm³ at 20 º C

Bulky density – 900 kg/m³

Steam pressure – the product is not volatile

Ignition point – none.

Flammability – the product is not flammable

Explosive properties – the product is not explosive

Low explosive limit – 2.3 volume % acetylene

Upper explosive limit – 82 volume % acetylene

10. Stability and reactivity

10.1. Conditions that should be avoided

Avoid exposing it to air and humidity.

10.2. Substances that should be avoided

Water, humid air, acids and acidic evaporations. When there is a contact with this substances follows a strong reaction and flammable gas acetylene is given off.

10.3. Dangerous products in the process of dissociation.

When there is a contact with water, follows a strong reaction and heat is given off.

When there is a contact with water, follows a strong reaction and gas acetylene is given off.

11. Toxicological information.

The calcium carbide is not highly toxic. It is classified as irritating for the skin and the respiratory tract; it can cause serious damages to the eyes. There are no continuous systematic injuries, because the ma the local effects are the main health danger.

11.1. Severe effects.

When there is a contact with the eyes – There is a risk of a seriously damaging your eyes.

When inhaled – often and continuous inhaling of the dust can affect the respiratory tract.

When there is a skin contact – When there is a continuous contact with the skin and it is also humid, the product can cause serious skin burning.

12. Ecological information.

It does not have severe and continuous toxicity on fish, invertebrates, water plants, microorganisms, bacteria, and water organisms, organisms in the soil and land plants.

13. Waste treatment.

According to the regulations of the national legislative system.

14. Transportation information.

14.1. Transport

14.1.1. Classification

ADR/GGVS CLASS – 4.3 II
RID/GGVS – 4.3. II
UN-NO – 1402
IMO/IMPDG CODE PAGE 4325
IATA/CAO – DGR CLASS 4.3 II Un. No 1402

14.2. It is transported in dry and covered vehicles.

15. Information in accordance with the current regulations.

There are no specific national or international laws regarding this product.

15.1. The labelling is according to Regulation EC 1272/2008 /see section 2/.

15.2. Sale and usage limitations. - None.

15.3. National laws. - None.

15.4. The safety of this substance has been assessed.

16. Other information.

16.1. Danger warnings:

Danger warnings:

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16.2. Safety recommendations.

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16.3. Risky phrases

R 15 - When there is a contact with water, it gives off gases that can ignite spontaneously

16.4. Protective phrases

S 2 – Keep it away from children.

S 8 – The container should be kept in a dry place.

S 43 - In cases of a fire use powder fire extinguishers, CO2 fire extinguishers or sand. Never use water!

16.5. Additional information.

This safety information list is an addition to the instructions for technical usage and it does not replace them. The information that it contains is based on our knowledge about the product around the date mentioned. It does not exempt the customers from following the regulations that control their activities. The customers' responsibility is to have in mind all the necessary warnings while using the product.

16.6. References

The safety information list is composed in accordance with:

Regulation REACH/EC/ 1907/2006

Regulation 453/2010

Regulation 1272/ 548 EEC

Directive 67/548 EEC

16.7. Inspection.

The present version has been updated in order to be in accordance with Annex II of Regulation/ EC/ 1907/2006.

Version – November, 2010