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Safety Data Sheet

according to Regulation (EC) No 1907/2006

markSolid 590.G9LP

Print date: 23.09.2013 Product code: 00429-0029 Page 1 of 6

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

1.1. Product identifier

markSolid 590.G9LP

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

Use of the substance/mixture

Firing, ceramic coating for glass and ceramics

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name: Pigmentum GmbH
Street: Schillerstr. 35
Place: D-90547 Stein
Telephone: +49 (0) 911-2126-0

e-mail: office@markSolid.de

Responsible Department:

Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone Emergency telephone :+49 (0) 6132 / 84463 (GBK GmbH, Ingelheim)

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This mixture is not classified as hazardous according to Directive 1999/45/EC.

GHS classification

This mixture is not classified as hazardous according to Regulation (EC) No. 1272/2008.

2.2. Label elements

Additional advice on labelling

The product does not require a hazard warning label in accordance with EC directives/German regulations on dangerous substances.

2.3. Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Aqueous suspension

Aqueous preparation with non-hazardous admixtures

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the event of persistent symptoms receive medical treatment.

After inhalation

Move victim to fresh air.

In the event of symptoms refer for medical treatment.

After contact with skin

Wash off immediately with soap and plenty of water.





according to Regulation (EC) No 1907/2006

markSolid 590.G9LP

Print date: 23.09.2013 Product code: 00429-0029 Page 2 of 6

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Consult a physician.

After ingestion

If symptoms persist, call a physician.

4.2. Most important symptoms and effects, both acute and delayed

Do not rub eyes - contains inorganic fillers, which irritate the eyes mechanically like other inert materials.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Product does not burn, fire-extinguishing activities according to surrounding.

5.2. Special hazards arising from the substance or mixture

No specific fire preventions necessary.

5.3. Advice for firefighters

No special protective equipment required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Observe protective instructions (see Sections 7 and 8).

6.2. Environmental precautions

Do not discharge into the drains or bodies of water.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel.

6.4. Reference to other sections

Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed in a dry, cool and well-ventilated place.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a dry, cool and well-ventilated place.

Advice on storage compatibility

No incompatible products to be specially mentioned.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Firing, ceramic coating for glass and ceramics

SECTION 8: Exposure controls/personal protection

8.1. Control parameters



according to Regulation (EC) No 1907/2006

markSolid 590.G9LP

Print date: 23.09.2013 Product code: 00429-0029 Page 3 of 6

Exposure limits (EH40)

| L | CAS No | Substance | ppm | mg/m³ | fibres/ml | Category | Origin |
|---|-----------|-------------------|-----|-------|-----------|---------------|--------|
| ſ | 1314-23-4 | Zirconium dioxide | | 1 | | TWA (8 h) | DFG |
| | | | | | | STEL (15 min) | DFG |

8.2. Exposure controls

Occupational exposure controls

Provide appropriate exhaust ventilation at machinery and at places where dust can be generated.

Protective and hygiene measures

At work do not eat, drink, smoke or take drugs.

Wash hands and skin before breaks and after work.

Respiratory protection

Breathing apparatus (particle filter) only if dust is formed.

Hand protection

Chemical-resistant gloves (EN 374).

Eye protection

Safety goggles with side protection (EN 166).

Skin protection

Protection clothes

Environmental exposure controls

Handle in accordance with good industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: Black
Odour: Odourless

Test method

pH-Value (at 20 °C):

Changes in the physical state

Flash point: n.a.

Density: 1,5 g/cm³

9.2. Other information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

No data available.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Not known





according to Regulation (EC) No 1907/2006

markSolid 590.G9LP

Print date: 23.09.2013 Product code: 00429-0029 Page 4 of 6

10.5. Incompatible materials

Not known

10.6. Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No data available.

Severe effects after repeated or prolonged exposure

Prolonged skin contact may cause irritation.

Further information

Classification in compliance with the assessment procedure specified in the EC guidelines 1999/45/EC.

SECTION 12: Ecological information

12.1. Toxicity

No data available.

12.2. Persistence and degradability

Not determined

12.3. Bioaccumulative potential

Not determined

12.4. Mobility in soil

Not determined

12.5. Results of PBT and vPvB assessment

Not determined

12.6. Other adverse effects

Low hazard to waters.

Further information

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Where possible recycling is preferred to disposal.

Waste disposal number of waste from residues/unused products

080203 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS

(PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of other coatings (including ceramic materials); aqueous suspensions containing ceramic materials

Contaminated packaging

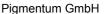
Can be landfilled or incinerated, when in compliance with local regulations.

SECTION 14: Transport information

Land transport (ADR/RID)

Other applicable information (land transport)

No hazardous material as defined by the transport regulations.





according to Regulation (EC) No 1907/2006

markSolid 590.G9LP

Print date: 23.09.2013 Product code: 00429-0029 Page 5 of 6

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

No hazardous material as defined by the transport regulations.

Marine transport (IMDG)

Other applicable information (marine transport)

No hazardous material as defined by the transport regulations.

Air transport (ICAO)

Other applicable information (air transport)

No hazardous material as defined by the transport regulations.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information

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

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

Additional information

The substance resp. all components are in:

TSCA: listed

EINECS/ELINCS: listed

DSL: listed AICS: listed

ENCS/MITI: listed
PICCS (PH): listed
KECI (KR): listed
HSNO listed
IECS listed

SECTION 16: Other information

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

IBC = Code International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

VOC = Volatile organic compound





according to Regulation (EC) No 1907/2006

markSolid 590.G9LP

Print date: 23.09.2013 Product code: 00429-0029 Page 6 of 6

STOT SE = Specific target organ toxicity single exposure

STOT RE = Specific target organ toxicity repeated exposure

PBT = Persistent Bioaccumulative and Toxic

vPvB = Very Persistent and very Bio-accumulative

bw = body weight

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)