

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006
Sikagard®-680 S Betoncolor



Revision Date 14.06.2017

Version 4.0

Print Date 14.06.2017

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

1.1 Product identifier

Trade name : Sikagard®-680 S Betoncolor

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

Product use : Surfaces protection

1.3 Details of the supplier of the safety data sheet

Company : Sika Limited
Watchmead
Welwyn Garden City
Hertfordshire AL7 1BQ
United Kingdom

Telephone : +44 (0)1707 394444

1.4 Emergency telephone number

Emergency telephone number : +44 (0)1707 363899 (available during office hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Type of product : Mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Specific target organ toxicity - single exposure, Category 3, Central nervous system H336: May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure, Category 2, Central nervous system H373: May cause damage to organs through prolonged or repeated exposure.

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)




SAFETY DATA SHEET
 according to Regulation (EC) No. 1907/2006
Sikagard®-680 S Betoncolor



Revision Date 14.06.2017

Version 4.0

Print Date 14.06.2017

| | | | | |
|--------------------------------|---|---|--|--|
| Hazard pictograms | : |  |  |  |
| Signal word | : | Warning | | |
| Hazard statements | : | H226 H336 H373 | Flammable liquid and vapour. May cause drowsiness or dizziness. May cause damage to organs (Central nervous system) through prolonged or repeated exposure. | |
| | | H412 | Harmful to aquatic life with long lasting effects. | |
| Supplemental Hazard Statements | : | EUH066 | Repeated exposure may cause skin dryness or cracking. | |
| Precautionary statements | : | Prevention: P210 P260 P273 P280 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Avoid release to the environment. Wear protective gloves/ eye protection/ face protection. | |
| | | Response: P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. | |
| | | P370 + P378 | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. | |

Hazardous components which must be listed on the label:

- 918-668-5 Hydrocarbons, C9, aromatics
- 928-136-4 Hydrocarbons, C8-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

| Chemical name CAS-No. EC-No. Registration number | Classification (REGULATION (EC) No 1272/2008) | Concentration [%] |
|---|---|----------------------|
| | | |

SAFETY DATA SHEET
 according to Regulation (EC) No. 1907/2006
Sikagard®-680 S Betoncolor



Revision Date 14.06.2017

Version 4.0

Print Date 14.06.2017

| | | |
|---|--|--------------|
| Hydrocarbons, C9, aromatics 918-668-5 01-2119455851-35-XXXX [corresponding group CAS 64742-95-6] | Flam. Liq.3; H226 STOT SE3; H335, H336 Asp. Tox.1; H304 Aquatic Chronic2; H411 | >= 10 - < 20 |
| Hydrocarbons, C8-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) 928-136-4 01-2119484809-19-XXXX [corresponding group CAS 64742-82-1] | Flam. Liq.3; H226 STOT SE3; H336 STOT RE1; H372 Asp. Tox.1; H304 Aquatic Chronic2; H411 | >= 5 - < 10 |
| xylene 1330-20-7 215-535-7 01-2119488216-32-XXXX Contains: ethylbenzene <= 25 % | Flam. Liq.3; H226 Acute Tox.4; H332 Acute Tox.4; H312 Skin Irrit.2; H315 Eye Irrit.2; H319 STOT SE3; H335 STOT RE2; H373 Asp. Tox.1; H304 | >= 3 - < 5 |
| Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) 919-446-0 265-185-4 01-2119458049-33-XXXX [corresponding group CAS 64742-82-1] | Flam. Liq.3; H226 STOT SE3; H336 STOT RE1; H372 Asp. Tox.1; H304 Aquatic Chronic2; H411 | >= 1 - < 2,5 |
| Substances with a workplace exposure limit : | | |
| 2-methoxy-1-methylethyl acetate 108-65-6 203-603-9 01-2119475791-29-XXXX Contains: 2-methoxypropyl acetate <= 1 % | Flam. Liq.3; H226 | >= 5 - < 10 |
| n-butyl acetate 123-86-4 204-658-1 01-2119485493-29-XXXX | Flam. Liq.3; H226 STOT SE3; H336 | >= 1 - < 2,5 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
 Consult a physician.
 Show this safety data sheet to the doctor in attendance.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006
Sikagard®-680 S Betoncolor



Revision Date 14.06.2017

Version 4.0

Print Date 14.06.2017

- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Do not induce vomiting without medical advice.
Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Erythema
Loss of balance
Vertigo
See Section 11 for more detailed information on health effects and symptoms.
- Risks : No known significant effects or hazards.

May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Alcohol-resistant foam, Carbon dioxide (CO₂), Dry chemical
- Unsuitable extinguishing media : Water, High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Do not use a solid water stream as it may scatter and spread fire.
- Hazardous combustion products : No hazardous combustion products are known



5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Remove all sources of ignition.
Deny access to unprotected persons.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8). For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharge. Open drum carefully as content may be under pressure. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Follow standard hygiene measures when handling chemical products

Advice on protection against fire and explosion : Use explosion-proof equipment. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Take precautionary measures against electrostatic discharges.

SAFETY DATA SHEET
 according to Regulation (EC) No. 1907/2006
Sikagard®-680 S Betoncolor



Revision Date 14.06.2017

Version 4.0

Print Date 14.06.2017

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully re-sealed and kept upright to prevent leakage. Store in accordance with local regulations.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

| Components | CAS-No. | Value | Control parameters * | Basis * |
|---------------------------------|-----------|-------|----------------------|------------|
| 2-methoxy-1-methylethyl acetate | 108-65-6 | TWA | 50 ppm 274 mg/m3 | GB EH40 |
| | | STEL | 100 ppm 548 mg/m3 | GB EH40 |
| xylene | 1330-20-7 | STEL | 100 ppm 441 mg/m3 | GB EH40 |
| | | TWA | 50 ppm 220 mg/m3 | GB EH40 |
| | | TWA | 50 ppm 221 mg/m3 | 2000/39/EC |
| | | STEL | 100 ppm 442 mg/m3 | 2000/39/EC |
| n-butyl acetate | 123-86-4 | TWA | 150 ppm 724 mg/m3 | GB EH40 |
| | | STEL | 200 ppm 966 mg/m3 | GB EH40 |

Biological occupational exposure limits

| Substance name | CAS-No. | Control parameters | Sampling time | Basis |
|----------------|-----------|--|---------------|----------------|
| xylene | 1330-20-7 | methyl hippuric acid: 650mmol/mol creatinine (Urine) | After shift | GB EH40 BAT |



8.2 Exposure controls

Personal protective equipment

- Eye protection : Safety glasses with side-shields conforming to EN166
Eye wash bottle with pure water
- Hand protection : Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manufacturer specifications.
- Suitable for short time use or protection against splashes:
Butyl rubber/nitrile rubber gloves (0,4 mm),
Contaminated gloves should be removed.
Suitable for permanent exposure:
Viton gloves (0.4 mm),
breakthrough time >30 min.
- Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionally recommended for mixing and stirring work.
- Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
organic vapor (Type A) and particulate filter
A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm
P1: Inert material; P2, P3: hazardous substances
Ensure adequate ventilation. This can be achieved by local exhaust extraction or by general ventilation. (EN 689 - Methods for determining inhalation exposure). This applies in particular to the mixing / stirring area. In case this is not sufficient to keep the concentrations under the occupational exposure limits then respiration protection measures must be used.

Environmental exposure controls

- General advice : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.



SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|--|
| Appearance | : liquid |
| Colour | : various |
| Odour | : characteristic |
| Odour Threshold | : No data available |
| Flash point | : ca. 30 °C |
| Autoignition temperature | : 235 °C |
| Decomposition temperature | : No data available |
| Lower explosion limit (Vol-%) | : 0,6 %(V) |
| Upper explosion limit (Vol-%) | : 6,5 %(V) |
| Flammability | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| pH | : Not applicable |
| Melting point/range / Freezing point | : No data available |
| Boiling point/boiling range | : No data available |
| Vapour pressure | : 4,9996 hPa |
| Density | : ca. 1,42 g/cm ³ at 20 °C |
| Water solubility | : insoluble |
| Partition coefficient: n-octanol/water | : No data available |
| Viscosity, dynamic | : No data available |
| Viscosity, kinematic | : > 20,5 mm ² /s at 40 °C |
| Relative vapour density | : No data available |
| Evaporation rate | : No data available |



9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Components:

Hydrocarbons, C9, aromatics:

Acute oral toxicity : LD50 Oral (Rat): > 2.000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2.000 mg/kg

Hydrocarbons, C8-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%):

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

xylene:

Acute oral toxicity : LD50 Oral (Rat): 3.523 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 1.700 mg/kg

2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006
Sikagard®-680 S Betoncolor



Revision Date 14.06.2017

Version 4.0

Print Date 14.06.2017

n-butyl acetate:

| | |
|---------------------------|--|
| Acute oral toxicity | : LD50 Oral (Rat): > 5.000 mg/kg |
| Acute inhalation toxicity | : LC50 (Rat): 23,4 mg/l Exposure time: 4 h Test atmosphere: vapour |
| Acute dermal toxicity | : LD50 Dermal (Rabbit): > 5.000 mg/kg |

Skin corrosion/irritation

Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause drowsiness or dizziness.

STOT - repeated exposure

May cause damage to organs (Central nervous system) through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Hydrocarbons, C9, aromatics :

| | |
|-------------------|---|
| Toxicity to algae | : 2,6 - 2,9 mg/l, 72 h, Pseudokirchneriella subcapitata (green algae) |
|-------------------|---|

xylene :

| | |
|------------------|---|
| Toxicity to fish | : 3,3 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout) |
|------------------|---|

n-butyl acetate :



Toxicity to algae : EC50: 647,7 mg/l, 72 h, *Desmodesmus subspicatus* (green algae)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The generation of waste should be avoided or minimized wherever possible.
Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.
Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

European Waste Catalogue : 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

Contaminated packaging : 15 01 10* packaging containing residues of or contaminated



by dangerous substances

SECTION 14: Transport information

ADR

14.1 UN number : 1263
14.2 Description of the goods : PAINT
14.3 Class : 3
14.4 Packing group : III
Classification Code : F1
Labels : 3
Tunnel restriction code : (D/E)
14.5 Environmentally hazard-ous : no

ADR

Exempted according to 2.2.3.1.5 (Viscous substance exemption)

IATA

14.1 UN number : 1263
14.2 Description of the goods : Paint
14.3 Class : 3
14.4 Packing group : III
Labels : 3
14.5 Environmentally hazard-ous : no

IMDG

14.1 UN number : 1263
14.2 Description of the goods : PAINT
14.3 Class : 3
14.4 Packing group : III
Labels : 3
EmS Number 1 : F-E
EmS Number 2 : S-E
14.5 Marine pollutant : no

14.6 Special precautions for user

No data available

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

Prohibition/Restriction

REACH - Restrictions on the manufacture, placing on : Not applicable

SAFETY DATA SHEET
 according to Regulation (EC) No. 1907/2006
Sikagard®-680 S Betoncolor



Revision Date 14.06.2017

Version 4.0

Print Date 14.06.2017

the market and use of certain dangerous substances, preparations and articles (Annex XVII)

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : None of the components are listed (= > 0.1 %).

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH Information: All substances contained in our Products are
 - preregistered or registered by our upstream suppliers, and/or
 - preregistered or registered by us, and/or
 - excluded from the regulation, and/or
 - exempted from the registration.

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

| | | Quantity 1 | Quantity 2 |
|-----|--|------------|------------|
| P5c | FLAMMABLE LIQUIDS | 5.000 t | 50.000 t |
| 34 | Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams), (d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d) | 2.500 t | 25.000 t |

VOC-CH (VOCV) : 35,21 %

VOC-EU (solvent) : 35,22 %

If other regulatory information applies that is not already provided elsewhere in the Safety Data Sheet, then it is described in this subsection.

Health, safety and environmental regulation/legislation specific for the substance or mixture: : Environmental Protection Act 1990 & Subsidiary Regulations
 Health and Safety at Work Act 1974 & Subsidiary Regulations
 Control of Substances Hazardous to Health Regulations (COSHH)
 May be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments.

Other regulations : Take note of Directive 92/85/EEC regarding maternity protec-



tion or stricter national regulations, where applicable.

15.2 Chemical safety assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Full text of H-Statements

| | |
|------|---|
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H372 | Causes damage to organs through prolonged or repeated exposure if inhaled. |
| H373 | May cause damage to organs through prolonged or repeated exposure if inhaled. |
| H411 | Toxic to aquatic life with long lasting effects. |

Full text of other abbreviations

| | |
|-----------------|--|
| Acute Tox. | Acute toxicity |
| Aquatic Chronic | Chronic aquatic toxicity |
| Asp. Tox. | Aspiration hazard |
| Eye Irrit. | Eye irritation |
| Flam. Liq. | Flammable liquids |
| Skin Irrit. | Skin irritation |
| STOT RE | Specific target organ toxicity - repeated exposure |
| STOT SE | Specific target organ toxicity - single exposure |
| ADR | Accord européen relatif au transport international des marchandises Dangereuses par Route |
| CAS | Chemical Abstracts Service |
| DNEL | Derived no-effect level |
| EC50 | Half maximal effective concentration |
| GHS | Globally Harmonized System |
| IATA | International Air Transport Association |
| IMDG | International Maritime Code for Dangerous Goods |
| LD50 | Median lethal dosis (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals) |
| LC50 | Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period) |
| MARPOL | International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 |
| OEL | Occupational Exposure Limit |
| PBT | Persistent, bioaccumulative and toxic |
| PNEC | Predicted no effect concentration |

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006
Sikagard®-680 S Betoncolor



Revision Date 14.06.2017

Version 4.0

Print Date 14.06.2017

| | |
|-------|--|
| REACH | Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency |
| SVHC | Substances of Very High Concern |
| vPvB | Very persistent and very bioaccumulative |

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

|| Changes as compared to previous version !