1 Identification

Product name: Optiseal 68, Part A
Identified uses: Resin.
Uses advised against: No specific uses advised against are identified.

*Details of the supplier of the safety data sheet

KROHNE Altometer
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3313 LC Dordrecht
The Netherlands

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E-mail address: info@krohne.com
*Manufacturer/Supplier: KROHNE
*Information department: sds@krohne.com
*Emergency telephone number:
In case of emergency:
+31 10 713 8195 (24hr, delivered by Carechem 24)

2 Hazard(s) identification

Classification: (EC 1272/2008)
Physical hazards: Not Classified
Health hazards: Eye Dam. 1 - H318
Environmental hazards: Not Classified

Hazard pictograms:

Signal word: Danger
Hazard statements: H318 Causes serious eye damage.

Precautionary statements: P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor.
Contains 2-ethylhexane-1,3-diol
Other hazards: This product does not contain any substances classified as PBT or vPvB.
Product name: Optiseal 68, Part A

3 Composition/information on ingredients

Calcium carbonate 10-30%
CAS number: 1317-65-3 EC number: 215-279-6
Classification: Not Classified

2-ethylhexane-1,3-diol 10-30%
CAS number: 94-96-2 EC number: 202-377-9 REACH registration number: 01-2120000832-71-XXXX
Classification: Eye Dam. 1 - H318

Kaolin 5-10%
CAS number: 1332-58-7 EC number: 310-194-1
Classification: Not Classified

Carbon Black <1%
CAS number: 1333-86-4 EC number: 215-609-9 REACH registration number: 01-2119384822-32-XXXX
Classification: Not classified

The full text for all hazard statements is displayed in Section 16.

4 First-aid measures

General information: Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
Inhalation: Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.

Skin contact: Rinse with water.

Eye contact: Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
Suitable extinguishing media: The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards Containers: can burst violently or explode when heated, due to excessive pressure build-up.

Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours

Protective actions during firefighting:
Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters:
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.
6 Accidental release measures

Personal precautions:
No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material.

Environmental precautions:
Environmental precautions Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up:
Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.
7 Handling and storage

Precautions for safe handling:
Usage precautions Read and follow manufacturer’s recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

Advice on general occupational hygiene:
Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

Conditions for safe storage, including any incompatibilities
Storage precautions Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent. Storage class Chemical storage.

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8 Exposure controls/personal protection

Control parameters:
Occupational exposure limits
Calcium carbonate
Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust
Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust
Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust
Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust
Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust
Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust
Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust
Kaolin
Long-term exposure limit (8-hour TWA): WEL 2 mg/m³ respirable dust
Carbon Black
Long-term exposure limit (8-hour TWA): WEL 3.5 mg/m³
Short-term exposure limit (15-minute): WEL 7 mg/m³
WEL = Workplace Exposure Limit

(Contd. on page 6)
Protective equipment

Appropriate engineering controls:
Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.

Eye/face protection: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection:
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection:
Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible. Hygiene measures Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection:
Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

Environmental exposure controls:
Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Information on basic physical and chemical properties
Appearance: Liquid.
Colour: Black.
Odour: Characteristic.
pH: Not available.
Melting point: Not available.
Initial boiling point and range: Not available.
Flash point: Not available.
Evaporation rate: Not available.
Flammability: (solid, gas) Not available.
Upper/lower flammability or explosive limits: Not available.
Vapour pressure: Not available.
Vapour density: Not available.
Bulk density: 1.17 kg/l
Solubility(ies): Not available.
Partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition Temperature: Not available.
Viscosity: 9300 mPa s @ 23°C/73.4°F
Explosive properties: Not considered to be explosive.
Oxidising properties: Does not meet the criteria for classification as oxidising.
10 Stability and reactivity

Reactivity: See the other subsections of this section for further details.
 Stability: Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
 Possibility of hazardous reactions: No potentially hazardous reactions known.
 Conditions to avoid: There are no known conditions that are likely to result in a hazardous situation.
 Materials to avoid: No specific material or group of materials is likely to react with the product to produce a hazardous situation.
 Hazardous decomposition products: Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

11 Toxicological information

Information on toxicological effects
 Acute toxicity: Based on available data the classification criteria are not met.
 Primary irritant effect: Based on available data the classification criteria are not met.
 on the skin: Based on available data the classification criteria are not met.
 on the eye: Eye Dam. 1 H318 Causes serious eye damage
 Sensitization: Based on available data the classification criteria are not met.
 IARC carcinogenicity: IARC group 2B possibly carcinogenic to humans  
 General information: The severity of symptoms described will vary dependent on the concentration and the length of exposure.

Carcinogenic categories:

* IARC (International Agency for Research on Cancer)
  CAS: 1333-86-4 Carbon Black

* NTP (National Toxicology Program)
  None of the ingredients is listed.

* OSHA-Ca (Occupational Safety & Health Administration)
  None of the ingredients is listed.
12 Ecological information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.
Calcium carbonate
Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

2-ethylhexane-1,3-diol
Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Kaolin
Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Amorphous Silica
Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Toxicity Based on available data the classification criteria are not met.

Ecological information on ingredients.
Calcium carbonate: Toxicity Based on available data the classification criteria are not met.
2-ethylhexane-1,3-diol: Toxicity Based on available data the classification criteria are not met.
Kaolin: Toxicity Based on available data the classification criteria are not met.
Amorphous Silica: Toxicity Based on available data the classification criteria are not met.
Thiodiethylene bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate]
Toxicity Aquatic Chronic 4 - H413 May cause long lasting harmful effects to aquatic life.

Persistence and degradability
Calcium carbonate: The degradability of the product is not known.
2-ethylhexane-1,3-diol: The degradability of the product is not known.
Kaolin: The degradability of the product is not known.
Amorphous Silica: The degradability of the product is not known.
Thiodiethylene bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate]: The degradability of the product is not known.

Bio accumulative potential: Bio accumulative potential No data available on bioaccumulation.

*Toxicity: Based on available data the classification criteria are not met.
*Ecotoxicity: Not regarded as dangerous for the environment. However, large of frequent spills may have hazardous effects on the environment.
*Persistence and degradability: The degradability of the product is not known.
*Partition Coefficient: Not available
*Bio accumulative potential: No data available on bioaccumulation.
*Mobility in soil: No data available
*Additional ecological information:
*Results of PBT and vPvB assessment
*PBT: Not applicable.
*vPvB: Not applicable.
*Other adverse effects: None known.
13 Disposal considerations

Waste treatment methods
General information The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods
Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

14 Transport information

| *UN-Number                    | Not applicable |
| *DOT, ADR, IMDG, IATA        |                |
| *UN proper shipping name     | Not applicable |
| *DOT, ADR, IMDG, IATA        |                |
| *Transport hazard class(es)  | Not transport warning sign required |
| *Packing group               | Not applicable |
| *DOT, ADR, IMDG, IATA        |                |
| *Environmental hazards:      |                |
| *Marine pollutant:           | No             |
| *Special precautions for user| Not applicable |
| *Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable |
| *Transport/Additional information: | Not dangerous according to the above specifications. |
| *UN "Model Regulation":     | Not applicable |
Product name: Optiseal 68, Part A

15 Regulatory information

National regulations:
Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) [“CDG 2009”].
EH40/2005 Workplace exposure limits.

EU legislation:

Chemical safety assessment:
No chemical safety assessment has been carried out.

Inventories EU - EINECS/ELINCS:
None of the ingredients are listed or exempt.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

*Department issuing SDS: Quality
*Contact: sds@krohne.com
*Date of preparation / last revision 05/29/2019 / 11
*Abbreviations and acronyms:
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
CAS: Chemical Abstracts Service.
ATE: Acute Toxicity Estimate.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
EC₅₀: 50% of maximal Effective Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations and acronyms:
Eye Dam. = Serious eye damage

Classification procedures according to Regulation (EC) 1272/2008: Eye Dam. 1 - H318: Calculation method.

Hazard statements in full:
H318 Causes serious eye damage.