SAFETY DATA SHEET

Revision: 3.0 Date: 30 March 2020

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ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name	Sauereisen DKS-8 Cement
Chemical Name	Mixture
CAS No.	Mixture
EINECS No.	Mixture
REACH Registration No.	None assigned.

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

Identified Use(s)	PC14 Metal surface treatment products, including galvanic and electroplating products.
Uses Advised Against	None known

1.3 Details of the supplier of the safety data sheet

Company Identification	VISHAY MEASUREMENTS GROUP UK LTD Stroudley Road Basingstoke Hampshire United Kingdom RG24 8FW
Telephone	+44 (0) 1256 462131
Fax	+44 (0) 1256 471441
E-Mail (competent person)	mm.uk@vishaypg.com

1.4 Emergency telephone number

Emergency Phone No.	(00-1) 703-527-3887	CHEMTREC (24 hours)
Languages spoken	All official European languages.	

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP)

Eye Irrit. 2; H319
Carc. 1; H350

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product Name: Sauereisen DKS-8 Cement
Contains: Quartz (Silica, Crystalline)

Hazard Pictogram(s)

Signal Word(s): Danger

Hazard Statement(s):
H319: Causes serious eye irritation.
H350: May cause cancer.

Precautionary Statement(s):
P201: Obtain special instructions before use.
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.
P308+P313: IF exposed or concerned: Get medical advice/attention.

P337+P313: If eye irritation persists: Get medical advice/attention.
P501: Dispose of contents in accordance with local, state or national legislation.

Supplemental information: Not applicable

2.3 Other hazards: May form flammable dust clouds in air.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances - Not applicable

3.2 Mixtures

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard classification
Magnesium Oxide	10 - <20	1309-48-4	215-171-9	Not yet assigned in the supply chain	Eye Irrit. 2; H319 STOT SE 3; H335
Boric Acid	<5	10043-35-3	233-139-2	Not yet assigned in the supply chain	Repr. 1B; H360FD **Specific Concentration Limit:** Repr. 1B; H360FD: C ≥ 5.5%
Quartz (Silica, Crystalline)	<1	14808-60-7	238-878-4	Not yet assigned in the supply chain	Carc. 1A; H350 STOT RE 1; H372 STOT SE 3; H335

For full text of H/P Statements see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Self-protection of the first aider: No action should be taken involving personal risk. Use personal protective equipment as required. Wear suitable protective clothing and eye/face protection. Do not breathe dust. Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Avoid all contact.

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/attention.

Skin Contact: IF ON SKIN: Remove contaminated clothing and wash all affected areas with plenty of water. Contaminated clothing should be thoroughly cleaned. If skin irritation occurs: Get medical advice/attention.

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation (redness, rash, blistering) develops, get medical attention.

Ingestion: IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Drink two glasses of water. Do not give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed: Causes serious eye irritation. May cause cancer.

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

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media: Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions. Extinguish with carbon dioxide, dry chemical, foam or waterspray.

	Unsuitable extinguishing media	Do not use water jet. Direct water jet may spread the fire.
5.2	**Special hazards arising from the substance or mixture**	May form flammable dust clouds in air. May decompose in a fire giving off toxic fumes. Decomposition products may include hydrogen. Oxides of carbon. Boron oxides. Phosphorous oxides. Magnesium oxides.
5.3	**Advice for fire-fighters**	Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	**Personal precautions, protective equipment and emergency procedures**	Ensure adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid all contact. Avoid breathing dust. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.
6.2	**Environmental precautions**	Avoid run off to waterways and sewers. Avoid release to the environment.
6.3	**Methods and material for containment and cleaning up**	Damp down to avoid dust generation. Use vacuum cleaner to collect spilt material. Recover the product where possible. Ventilate the area and wash spill site after material pick-up is complete.
6.4	**Reference to other sections**	See Section: 8, 13

SECTION 7: HANDLING AND STORAGE

7.1	**Precautions for safe handling**	Ensure adequate ventilation. Avoid breathing dust. Avoid all contact. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Remove contaminated clothing and wash clothing before reuse. Take precautionary measures against static discharge.
7.2	**Conditions for safe storage, including any incompatibilities**	Store in a dry place. Keep container closed.
	Storage temperature	Ambient.
	Storage life	Stable under normal conditions.
	Incompatible materials	Keep away from: Strong Reducing agent/Oxidizing agents and Strong Alkalis.
7.3	**Specific end use(s)**	PC14 Metal surface treatment products, including galvanic and electroplating products. See Section: 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Magnesium oxide	1309-48-4	- -	10 (1) 4 (2)	- -	- -	WEL
Quartz (Silica, respirable crystalline)	14808-60-7	-	0.1	-	-	WEL, Carc

Source: WEL: Workplace Exposure Limit (UK HSE EH40).
Note:
(1) Inhalable Dust
(2) Respirable Dust
Carc: Capable of causing cancer and/or heritable genetic damage (where generated as a result of a work process).

8.1.2 Biological limit value Not established.

8.1.3 PNECs and DNELs Not applicable

8.2 Exposure controls

8.2.1	**Appropriate engineering controls**	Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures. Take action to prevent static discharges. Keep away from fire, sparks and heated surfaces.
8.2.2	**Individual protection measures, such as personal protective equipment (PPE)**	General hygiene measures for the handling of chemicals are applicable. Avoid all contact. Wash hands before breaks and after work. Keep work clothes separately. Contaminated clothing should be thoroughly cleaned. Do not eat, drink or smoke at the work place. Avoid breathing dust.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye/ face protection 	Wear eye protection with side protection (EN166).
Skin protection 	**Hand protection:** Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Suitable materials: Nitrile rubber/Butyl rubber **Body protection**: Wear dust-resistant protective clothing. Recommended: Wear work clothes with long sleeves.
Respiratory protection 	Wear suitable respiratory protective equipment if processing involves working in areas where dusts or vapours are likely to be evolved. A suitable dust mask or dust respirator with filter type P (EN143 or EN405) may be appropriate.
Thermal hazards	Not applicable.

8.2.3	**Environmental Exposure Controls**	Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	White to tan powder
Odour	No odour
Odour threshold	Not available.
pH	Not established.
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Non-flammable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	4.5 (H_2O=1)
Solubility(ies)	Not applicable.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2	**Other information**	Volatile Organic Compound Content (%): 0

SECTION 10: STABILITY AND REACTIVITY

10.1	**Stability and reactivity**	Stable under normal conditions.
10.2	**Chemical stability**	Stable under normal conditions.
10.3	**Possibility of hazardous reactions**	Hazardous polymerisation will not occur.
10.4	**Conditions to avoid**	Avoid generation of dust.
10.5	**Incompatible materials**	Keep away from: Strong Reducing agent/Oxidizing agents and Strong Alkalis.
10.6	**Hazardous decomposition product(s)**	May decompose in a fire giving off toxic fumes. Decomposition products may include hydrogen. Oxides of carbon. Boron oxides. Phosphorous oxides. Magnesium oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects (Substances in preparations / mixtures)

Acute toxicity - Oral	Mixture: Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LD50 > 2000 mg/kg bw/day.
Acute toxicity - Dermal	Mixture: Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LD50 > 2000 mg/kg bw/day.
Acute toxicity - Inhalation	Mixture: Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 5 mg/l.
Skin corrosion/irritation	Mixture: Based upon the available data, the classification criteria are not met.
Serious eye damage/irritation	Mixture: Eye Irrit. 2; H319 Causes serious eye irritation.
Magnesium Oxide	Eye Irrit. 2; H319: Causes serious eye irritation. (EU classification and labelling inventory).
Respiratory or skin sensitization	Mixture: Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity	Mixture: Based upon the available data, the classification criteria are not met.
Carcinogenicity	Mixture: Carc. 1A; H350: May cause cancer.
Quartz (Silica, respirable crystalline)	Carc. 1A; H350: May cause cancer. IARC Classification: Group 1. NTP Report on Carcinogens Suspected of causing cancer by inhalation. (Checkoway et al., 1993) (Rice et al., 2001) (Rafnsson V et al, 1997) Route of Exposure: Inhalation into Lungs Causes irritation. Inflammation. Leading to Silicosis and eventually tumour formation. (SIAM 32, 19-21 April 2011)
Reproductive toxicity	Mixture: Based upon the available data, the classification criteria are not met.
STOT - single exposure	Mixture: Based upon the available data, the classification criteria are not met.
STOT - repeated exposure	Mixture: Based upon the available data, the classification criteria are not met.
Aspiration hazard	Mixture: Based upon the available data, the classification criteria are not met.

11.2	**Other information**	None.

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	Mixture: Based upon the available data, the classification criteria are not met. Estimated Mixture LC50 >100 mg/l (Fish)
12.2	**Persistence and degradability**	No data for the mixture as a whole.
	Magnesium Oxide	Not applicable for inorganic substances
	Quartz (Silica, respirable crystalline)	Not applicable for inorganic substances
	Boric Acid	Not applicable for inorganic substances
12.3	**Bioaccumulative potential**	No data for the mixture as a whole.
	Magnesium Oxide	No data.
	Quartz (Silica, respirable crystalline)	No data.
	Boric Acid	Does not bioaccumulate. Bioconcentration factor (BCF) : 0.7-1.4 l/kg (oysters) (Thompson et al. 1976)

12.4	**Mobility in soil**	No data for the mixture as a whole.
	Magnesium Oxide	No data.
	Quartz (Silica, respirable crystalline)	No data.
	Boric Acid	The substance is predicted to have moderate mobility in soil. ECHA Registration Endpoint summary.
12.5	**Results of PBT and vPvB assessment**	Not classified as PBT or vPvB. None of the substances in this product fulfil the criteria for being regarded as a PBT or vPvB substance.
12.6	**Other adverse effects**	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	Dispose of this material and its container as hazardous waste. Containers of this material may be hazardous when empty since they retain product residue. Dispose of wastes in an approved waste disposal facility.
13.2	**Additional Information**	Dispose of contents in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

		ADR/RID	**Sea transport (IMDG)**	**Air (ICAO/IATA)**
14.1	**UN number**	Not classified as dangerous for transport.		
14.2	**UN proper shipping name**	Not classified	Not classified	Not classified
14.3	**Transport hazard class(es)**	Not classified	Not classified	Not classified
14.4	**Packing group**	Not classified	Not classified	Not classified
14.5	**Environmental hazards**	Not classified	Not classified as a Marine Pollutant.	Not classified
14.6	**Special precautions for user**	See Section: 2		
14.7	**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**	Not applicable		
14.8	**Additional Information**	None.		

SECTION 15: REGULATORY INFORMATION

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	
15.1.1	**EU regulations**	
	Authorisations and/or Restrictions On Use	Not restricted
15.1.2	**National regulations**	
	Wassergefährdungsklasse (Germany)	Water hazard class: 1 (Self classification)
15.2	**Chemical Safety Assessment**	A chemical safety assessment is not required under REACH.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

Updated substance / mixture classification. Updated version and date. Please review SDS with care

The following sections have updates indicated by :

References:
Existing Safety Data Sheet (SDS).
EU Harmonised Classification and Existing ECHA registration(s) for Boric Acid (CAS No. 10043-35-3)
EU classification and labelling inventory for Magnesium Oxide (CAS No. 1309-48-4)

Literature References:

1. Checkoway, H., Heyer, N.J., Demers, P.A. & Breslow, N.E. (1993) Mortality among workers in the diatomaceous earth industry. *Br. 1. ind. Med*., 50, 586-597
2. Rice, F.L., Park, R., Stayner, L., Smith, R., Gilbert, S., and Checkoway, H. 2001. Crystalline silica exposure and lung cancer mortality in diatomaceous earth industry workers: a quantitative risk assessment. *Occup Environ Med*, 58(1):38-45.
3. Rafnsson V & Gunnarsdottir H, 1997, Lung cancer incidence among an Icelandic cohort exposed to diatomaceoys earth and cristobalite., *Scand J Work Environ Health*, 23: 187 – 192. PMID:9243728.
4. INITIAL TARGETED ASSESSMENT PROFILE (Human Health), SIAM 32, 19-21 April 2011, OECD
5. Thompson, J.A.J., Davis, J.C. and Drew, R.E. (1976) Toxicity, uptake and survey studies of boron in the marine environment. *Water Research* Vol. 10. pp 869 to 875, 1976

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830.

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	**Classification Procedure**
Eye Irrit. 2; H319	Threshold Calculation
Carc. 1A; H350	Threshold Calculation

LEGEND

ADR/RID	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulations concerning the international railway transport of dangerous goods
CAS	Chemical Abstracts Service
DNEL	Derived No Effect Level
EC	European Community
EU	European Union
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
STEL	Short Term Exposure Limit
UN	United Nations
vPvB	very Persistent and very Bioaccumulative

Hazard classification / Classification code:	**Hazard Statement(s)**
Eye Irrit. 2; Eye Irritation, Category 2	H319: Causes serious eye irritation.
STOT SE 3; Specific target organ toxicity — single exposure, Category 3	H335: May cause respiratory irritation.
Carc. 1A; Carcinogenicity, Category 1A	H350: May cause cancer.
Repr. 1B; Reproductive toxicity, Category 1B	H360FD: May damage fertility. May damage the unborn child.
STOT RE 1; Specific target organ toxicity — repeated exposure, Category 1	H372: Causes damage to organs through prolonged or repeated exposure.

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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Annex to the extended Safety Data Sheet (eSDS)
Not applicable

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