

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

1.1. Product identifier

Trade name or designation of the mixture Hiperhard

Registration number -

Synonyms Potassium silicate solution.

Product code 543087165

Issue date 04-April-2014

Version number 01

Revision date -

Supersedes date -

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

Identified uses Limited amount to be used on concrete floor surface for hardening top layer in polishing process.

Uses advised against Use in accordance with supplier's recommendations.

1.3. Details of the supplier of the safety data sheet

Supplier Husqvarna Construction Products
Box 2098
SE-550 Jönköping, Sweden
Industrigatan

Telephone +46 36 570 60 00

Contact person Quality and Environmental Coordinator

1.4. Emergency telephone number +1-760-476-3961 (Access code 333721)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification Xi;R36/38

The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.

Hazard summary

Physical hazards Not classified for physical hazards.

Health hazards Irritating to eyes and skin.

Environmental hazards Not classified for hazards to the environment.

Specific hazards Swallowing may cause gastrointestinal irritation.

Main symptoms Symptoms include itching, burning, redness and tearing.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms



Signal word Warning

Hazard statements H319 - Causes serious eye irritation.
H315 - Causes skin irritation.

Precautionary statements

Prevention	P264 - Wash thoroughly after handling. P280 - Wear protective gloves/eye protection/face protection.
Response	P302 + P352 - IF ON SKIN: Wash with plenty of soap and water. P332 + P313 - If skin irritation occurs: Get medical advice/attention. P362 - Take off contaminated clothing and wash before reuse. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice/attention.
Storage	Not assigned.
Disposal	Not assigned.

Supplemental label information None.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Water	50-70	7732-18-5 231-791-2	-	-	
Classification:	DSD: -				
	CLP: -				
Silicic acid, potassium salt (2.6< MR =<3.2)	30-50	1312-76-1 215-199-1	01-2119456888-17	-	
Classification:	DSD: Xi;R36/37/38				
	CLP: Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335				

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

Composition comments The full text for all R- and H-phrases is displayed in section 16. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation	No specific treatment is necessary since this material is not likely to be hazardous by inhalation.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids wide apart. Get medical attention if irritation persists after washing.
Ingestion	Rinse mouth. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Only induce vomiting at the instruction of medical personnel. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed Symptoms include itching, burning, redness and tearing.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards The product is non-combustible.

5.1. Extinguishing media

Suitable extinguishing media	Use extinguishing agent suitable for type of surrounding fire.
Unsuitable extinguishing media	None.

5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters**Special protective equipment for firefighters**

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Be aware of potential for surfaces to become slippery. Avoid contact with skin and eyes. Wear protective clothing as described in section 8 of this safety data sheet.

For emergency responders

Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Stop the flow of material, if this is without risk.

Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Spills: Wipe up spilled material and place in a suitable container for disposal.

Never return spills in original containers for re-use. Wash area with soap and water. Wash contaminated area with water.

6.4. Reference to other sections

For personal protection, see Section 8 of the SDS. For waste disposal, see Section 13 of the SDS.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Be aware of potential for surfaces to become slippery. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Handle and open container with care. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Protect from freezing. Store at temperature below 50°C. Store away from incompatible materials.

7.3. Specific end use(s)

Limited amount to be used on concrete floor surface for hardening top layer in polishing process.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures

Follow standard monitoring procedures.

Derived no-effect level (DNEL)

Components	Type	Route	Value	Form
Silicic acid, potassium salt (2.6< MR =<3.2) (CAS 1312-76-1)	Workers	Dermal	1,49 mg/kg/day	Long term exposure systemic effects
		Inhalation	5,61 mg/m3	Long term exposure systemic effects

Predicted no effect concentrations (PNECs)

Components	Type	Route	Value	Form
Silicic acid, potassium salt (2.6< MR =<3.2) (CAS 1312-76-1)	Aqua (freshwater)	Water	7,5 mg/l	
	Aqua (intermittent releases)	Water	7,5 mg/l	
	Aqua (marine water)	Water	1 mg/l	
	Sewage Treatment Plant	Not applicable	348 mg/l	

8.2. Exposure controls**Appropriate engineering controls**

No special ventilation requirements.

Individual protection measures, such as personal protective equipment**General information**

Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
- Hand protection	Wear protective gloves. PVC gloves are recommended. Suitable gloves can be recommended by the glove supplier.
- Other	Wear suitable protective clothing.
Respiratory protection	No personal respiratory protective equipment normally required.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	Environmental manager must be informed of all major spillages.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Colour	Colourless.
Odour	Odourless.
Odour threshold	Not applicable.
pH	alkaline
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	100 °C (212 °F)
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	Soluble in water.
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity	Not applicable.
Explosive properties	Not applicable.
Oxidizing properties	Not applicable.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	May form flammable hydrogen gas when in contact with some metals such as aluminium, tin, lead and zinc and their alloys. Reacts readily with various reducing sugars (i.e. fructose, galactose, maltose, dry whey solids) to produce carbon monoxide.
10.4. Conditions to avoid	Excessive heat. Freezing. Contact with incompatible materials.
10.5. Incompatible materials	Acids. Metals.
10.6. Hazardous decomposition products	None known.

SECTION 11: Toxicological information

General information None known.

Information on likely routes of exposure

Ingestion May cause irritation of the gastrointestinal tract.
Inhalation High mist concentrations may cause irritation of respiratory tract.
Skin contact Causes skin irritation.
Eye contact Causes serious eye irritation.

Symptoms Symptoms include itching, burning, redness and tearing.

11.1. Information on toxicological effects

Product	Species	Test results
Hiperhard (CAS Mixture)		
Acute		
<i>Dermal</i>	Rat	> 5000 mg/kg
<i>Inhalation</i>	Rat	> 2,06 mg/l
<i>Oral</i>	Rat	> 5000 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory sensitisation	Not classified.	
Skin sensitisation	Not classified.	
Germ cell mutagenicity	Not classified.	
Carcinogenicity	Not classified.	
Reproductive toxicity	Not classified.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not classified.	
Mixture versus substance information	No data available.	
Other information	Not available.	

SECTION 12: Ecological information

12.1. Toxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test results
Hiperhard (CAS Mixture)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50 Daphnia magna	> 146 mg/l, 24 hours
Fish	LC50 Leuciscus idus	> 146 mg/l, 48 hours
12.2. Persistence and degradability	Not relevant for inorganic substances.	
12.3. Bioaccumulative potential	Not relevant for inorganic substances.	
Partition coefficient n-octanol/water (log Kow)	No data available.	
Bioconcentration factor (BCF)	Not available.	
12.4. Mobility in soil	The product adsorbs strongly to soil.	
Mobility in general	The product is soluble in water.	
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.	

12.6. Other adverse effects The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Dispose in accordance with all applicable regulations. This material and/or its container must be disposed of as hazardous waste.

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Not listed.

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not listed.

Directive 94/33/EC on the protection of young people at work

Not listed.

Other regulations

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended and respective national laws implementing EC directives.

National regulations

Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

DNEL: Derived No-Effect Level.
PNEC: Predicted No-Effect Concentration.
LD50: Lethal Dose, 50%.
LC50: Lethal Concentration, 50%.

References

ESIS (European chemical Substances Information System)

Information on evaluation method leading to the classification of mixture

The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R36/37/38 Irritating to eyes, respiratory system and skin.
R36/38 Irritating to eyes and skin.

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Training information

Follow training instructions when handling this material.

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.