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

1.1. Product identifier

Product name

SALOX®

Synonyms

Calcined Alumina, Kalzinierte Tonerde, Calcinata allumina, Kalcinirana glinica: 100 (GKM), LS15 (GKT-LS), chemius.net/ce634 LS15SG (GKT-LS-SG), S15 (GKT), S15SG (GKT-SG), M-1 (GKE), M-1FG (GKE-MF), M-S1 (GKE-V), M-S1FG (GKE-V-MF; ALO-G4-4G), M-MS1FG, MS 100, MS15 (GKT-MS), S100 (GKM), VLS15 (GKT-VLS), VLS15SG (GKT-VLS-SG)

<u>Name</u>

aluminium oxide (CAS: 1344-28-1, EC: 215-691-6)

REACH Registration number

01-2119529248-35-0068

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

Relevant identified uses

Raw material in the refractories, ceramics, glass and chemical industries, abrasives, polishing aids; use as an additive, filler, pigment

Uses advised against

No information.

1.3. Details of the supplier of the safety data sheet

Manufacturer

SILKEM, d. o. o.

Address: Tovarniška cesta 10, 2325 Kidričevo, Slovenia

Phone: +386 2 7991 200 Fax: +386 2 7991 230 E-mail: info@silkem.si

1.4. Emergency telephone number

Emergency

112

Supplier

+386 2 7991 214 (7h - 15h)

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

According to the regulation, the product is not classified as hazardous.

2.2 Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

2.2.2. Contains:

-

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2.2.3. Special provisions

The product is not classified as dangerous according to regulations.

2.3. Other hazards

No information.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	REACH Registration No.
aluminium oxide	1344-28-1 215-691-6 -	99.3-99.7	not classified		01-2119529248-35-0068

3.2. Mixtures

For substances see 3.1.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General notes

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency.

Following inhalation

Remove patient to fresh air - move out of dangerous area. If symptoms develop and persist, seek medical attention.

Following skin contact

Take off all contaminated clothing. If symptoms develop and persist, seek medical attention. Areas of the body that have come into contact with the product must be rinsed with water.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

Following ingestion

Do not induce vomiting! Rinse mouth thoroughly with water. In case of doubt or if feeling unwell seek medical help. Show the physician the safety data sheet or label.

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

Inhalation

Breathing dust can irritate the respiratory tract.

Skin contact

No irritant effects.

Eye contact

Dust may irritate the eyes.

Ingestion

No data.

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

-

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SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

-

5.3. Advice for firefighters

Protective actions

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Special protective equipment for firefighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

SECTION 6. ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures
 - 6.1.1. For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Emergency procedures

Ensure adequate ventilation.

6.1.2. For emergency responders

-

6.2. Environmental precautions

If accidental large entry into water or ground occurs, inform responsible authorities.

- 6.3. Methods and material for containment and cleaning up
 - 6.3.1. For containment

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6.3.2. For cleaning up

Collect in a suitable container and dispose of according to regulations.

6.3.3. Other information

-

6.4. Reference to other sections

See also Sections 8 and 13.

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SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Protective measures

Measures to prevent fire

Ensure adequate ventilation.

Measures to prevent aerosol and dust generation

Prevent dusting.

Measures to protect the environment

-

7.1.2. Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe dust.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures and storage conditions

Keep in cool and well ventilated area. Keep away from food, drink and animal feeding stuffs.

7.2.2. Packaging materials

-

7.2.3. Requirements for storage rooms and vessels

.

7.2.4. Storage class

-

7.2.5. Further information on storage conditions

-

7.3. Specific end use(s)

Recommendations

-

Industrial sector specific solutions

-

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Occupational exposure limit values

Name (CAS)	Limit values		Short-term exposure limit		Remarks	Biological Tolerance Values
	ml/m ³ (ppm)	mg/m ³	ml/m ³ (ppm)	mg/m ³		
Aluminium oxides inhalable dust (1344-28-1)	-	10	-	-		
Aluminium oxides respirable dust (1344-28-1)	-	4	-	-		

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8.1.2. Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2012+A1:2015 Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values.

8.1.3. DNEL/DMEL values

No information.

8.1.4. PNEC values

No information.

8.2. Exposure controls

8.2.1. Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration.

8.2.2. Personal protective equipment

Eye and face protection

Safety glasses with side protection (EN 166).

Hand protection

Protective gloves (EN 374).

Skin protection

Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345).

Respiratory protection

Thermal hazards

8.2.3. Environmental exposure controls

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

-	Physical state:	solid
-	Colour:	white
-	Odour:	no odour

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Important health, safety and environmental information

- pH - Mel	1	
- Mel	•	No information.
	elting point/freezing point	> 2000 °C
- Init	itial boiling point/boiling range	> 2980 °C
- Flas	ash point	No information.
- Eva	aporation rate	No information.
- Fla	ammability (solid, gas)	Not flammable.
- Exp	cplosion limits (vol%)	No information.
- Var	apour pressure	No information.
- Vap		
	apour density	No information.
- Var	apour density ensity	No information. Relative density: 800 – 1100
- Var		Relative density:
- Vap - Der	ensity	Relative density: 800 – 1100 Water:
- Vap - Der - Sol	olubility	Relative density: 800 – 1100 Water: Insoluble
- Var - Der - Sol - Par - Aut	ensity Dlubility artition coefficient	Relative density: 800 – 1100 Water: Insoluble No information.
- Vap - Der - Sol - Par - Aut	ensity Dlubility artition coefficient uto-ignition temperature	Relative density: 800 – 1100 Water: Insoluble No information. No information.
- Vap - Der - Sol - Par - Aut - Dec - Vis	ensity Diubility Artition coefficient uto-ignition temperature ecomposition temperature	Relative density: 800 – 1100 Water: Insoluble No information. No information. No information.
- Fla	ammability (solid, gas)	Not flammable.

9.2. Other information

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SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

-

10.2. Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3. Possibility of hazardous reactions

-

10.4. Conditions to avoid

No special precautions required. Consider the directions for use and storage.

10.5. Incompatible materials

-

10.6. Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected.

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SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

(a) Acute toxicity

Name	Exposure route	Туре	Species	Time	Value	Method	Remark
aluminium oxide (1344-28-1)	oral	LD ₅₀	rat		> 5000 mg/kg		
aluminium oxide (1344-28-1)	inhalation	LC ₅₀	rat		> 2,3 mg/l		

(b) Skin corrosion/irritation

No information.

(c) Serious eye damage/irritation

No information.

(d) Respiratory or skin sensitisation

No information.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

No information.

(h) STOT-single exposure

No information.

(i) STOT-repeated exposure

No information.

(j) Aspiration hazard

No information.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Acute (short-term) toxicity

No information.

12.1.2. Chronic (long-term) toxicity

No information.

12.2. Persistence and degradability

12.2.1. Abiotic degradation, physical- and photo-chemical elimination

No information.

12.2.2. Biodegradation

No information.

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12.3. Bioaccumulative potential

12.3.1. Partition coefficient

No information.

12.3.2. Bioconcentration factor (BCF)

No information.

12.4. Mobility in soil

12.4.1. Known or predicted distribution to environmental compartments

No information.

12.4.2. Surface tension

No information.

12.4.3. Adsorption/Desorption

No information.

12.5. Results of PBT and vPvB assessment

No evaluation.

12.6. Other adverse effects

No information.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product / Packaging disposal

Waste chemical

Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

Packaging

Deliver completely emptied containers to approved waste disposal authorities.

13.1.2. Waste treatment-relevant information

13.1.3. Sewage disposal-relevant information

13.1.4. Other disposal recommendations

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

Not applicable.

14.2. UN proper shipping name

ADR, RID, IMDG, ADN, IATA: Not dangerous according to transport regulations.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

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14.5. Environmental hazards

NO.

14.6. Special precautions for user

Not applicable.

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
 - Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2015/830)
 - Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-quideline)

Not applicable.

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16. OTHER INFORMATION

Indication of changes

New product name.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate

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

CEN - European Committee for Standardisation

C&L - Classification and Labelling

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

CAS# - Chemical Abstracts Service number

CMR - Carcinogen, Mutagen, or Reproductive Toxicant

CSA - Chemical Safety Assessment

CSR - Chemical Safety Report

DMEL - Derived Minimal Effect Level

DNEL - Derived No Effect Level

DPD - Dangerous Preparations Directive 1999/45/EC

DSD - Dangerous Substances Directive 67/548/EEC

DU - Downstream User

EC - European Community

ECHA - European Chemicals Agency

EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)

EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)

EEC - European Economic Community

EINECS - European Inventory of Existing Commercial Substances

ELINCS - European List of notified Chemical Substances

EN - European Standard

EQS - Environmental Quality Standard

EU - European Union

Euphrac - European Phrase Catalogue

EWC - European Waste Catalogue (replaced by LoW - see below)

GES - Generic Exposure Scenario

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GHS - Globally Harmonized System

IATA - International Air Transport Association

ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG - International Maritime Dangerous Goods IMSBC - International Maritime Solid Bulk Cargoes

IT - Information Technology

IUCLID - International Uniform Chemical Information Database

IUPAC - International Union for Pure Applied Chemistry

JRC - Joint Research Centre

Kow - octanol-water partition coefficient

LC₅₀ - Lethal Concentration to 50 % of a test population

LD₅₀ - Lethal Dose to 50% of a test population (Median Lethal Dose)

LE - Legal Entity

LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)

LR - Lead Registrant

M/I - Manufacturer / Importer

MS - Member States

MSDS - Material Safety Data Sheet

OC - Operational Conditions

OECD - Organization for Economic Co-operation and Development

OEL - Occupational Exposure Limit

OJ - Official Journal

OR - Only Representative

OSHA - European Agency for Safety and Health at work

PBT - Persistent, Bioaccumulative and Toxic substance

PEC - Predicted Effect Concentration

PNEC(s) - Predicted No Effect Concentration(s)

PPE - Personal Protection Equipment

(Q)SAR - Qualitative Structure Activity Relationship

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

RIP - REACH Implementation Project

RMM - Risk Management Measure

SCBA - Self-Contained Breathing Apparatus

SDS - Safety data sheet

SIEF - Substance Information Exchange Forum

SME - Small and Medium sized Enterprises

STOT - Specific Target Organ Toxicity

(STOT) RE - Repeated Exposure

(STOT) SE - Single Exposure

SVHC - Substances of Very High Concern

UN - United Nations

vPvB - Very Persistent and Very Bioaccumulative

Key literature references and sources for data

Safety Data Sheet of GK, Version 1.0

List of relevant H phrases

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under Section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.

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