SLOVASOL 356

Version: *6.00* **Revision Date 12.12.2017**

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

1.1 Product identifier

Trade name **SLOVASOL 356**

Substance name (REACH / CLP) Alcohols, C13-15, branched and linear, ethoxylated (>2.5 moles EO) (CAS 157627-86-6)

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

Use raw material for washing and cleaning agents
Industrial use

Uses advised against

1.3 Details of the supplier of the safety data sheet

Company Sloveca, Sasol Slovakia, spol. s r.o.
Mostová 2
811 02 Bratislava
Slovak Republic

Telephone: +421 2 54430219
Telefax: +421 2 54430315

Information (Product safety): Telephone: +421 46 546 1204
Telefax: +421 46 546 1144

E-mail address msds-info.italy@it.sasol.com

1.4 Emergency telephone number

Emergency telephone number +421 902 899981; +421 25 477 4166 National Toxicological Information Centre (24 hours)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Serious eye damage Category 1	Causes serious eye damage.
Chronic aquatic toxicity Category 3	Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms

Signal word Danger

Hazard statements

H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P273	Avoid release to the environment.
P280	Wear eye protection/ face protection.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

Danger of slipping after spill or leakage.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a substance in the meaning of regulation (EC) 1907/2006.

COMPONENTS TO BE NAMED IN ACCORDANCE WITH REGULATION (EC) 1907/2006 AS WELL AS OTHER HAZARDOUS INGREDIENTS AND CONTAINED SUBSTANCES WITH WORK PLACE LIMIT VALUES

Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO)

content: >= 90 - <= 100 % **component type:** Active ingredient

EC-No.: 935-523-1 **Index-No.:** **CAS-No.:** 157627-86-6
REACH No.: Not relevant (polymer)
Substance name (REACH / CLP): Alcohols, C13-15, branched and linear, ethoxylated (>2.5 moles EO) (CAS 157627-86-6)

Classification (Regulation (EC) No 1272/2008):	Eye Dam. 1	H318	
	Aquatic Chronic 3		H412

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

Other data Synonyms: Alcohols, C12-15, ethoxylated; CAS-No.: 68131-39-5

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	If you feel unwell, seek medical advice (show the label where possible). Take off all contaminated clothing immediately.
If inhaled	Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a physician.
In case of skin contact	Wash off immediately with plenty of water. Consult a physician if necessary.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed	Consult a physician. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed	Symptoms: No information available. Risks: No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Indication of any immediate medical attention and special treatment needed	Treatment: No information available.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Water spray, Dry powder, Foam, Carbon dioxide (CO2)

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	Dangerous gases or fumes may occur in case of fire.

5.3 Advice for firefighters

Special protective equipment for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	Standard procedure for chemical fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). The material taken up must be disposed of in accordance with regulations.

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	Wear personal protective equipment. Avoid contact with skin and eyes.
Advice on protection against fire and explosion	Normal measures for preventive fire protection. Do not spray on a naked flame or any incandescent material.
Fire-fighting class	B: Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperatures.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	Keep tightly closed in a dry and cool place.
Storage class (TRGS 510)	10-13: German Storage Class 10 to 13
Other data	Stable at normal ambient temperature and pressure.

7.3 Specific end use(s)

Specific use(s)	This information is not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

National occupational exposure limits

No data available

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

No data available

Derived No Effect Level (DNEL)

No data available

Predicted No Effect Concentration (PNEC)

No data available

8.2 Exposure controls

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection	No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.
Hand protection	The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).

gloves suitable for permanent contact:
Material: butyl-rubber
Break through time: >= 480 min
Layer thickness: >= 0,7 mm

gloves suitable for splash protection:
Material: Nitrile rubber/nitrile latex
Break through time: >= 30 min
Layer thickness: >= 0,4 mm

Eye protection	Tightly fitting safety goggles, Safety glasses with side-shields
Skin and body protection	Wear suitable protective equipment.
Hygiene measures	Avoid contact with the skin and the eyes. Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke.
Protective measures	Avoid contact with the skin and the eyes. Wear suitable gloves and eye/face protection.

ENVIRONMENTAL EXPOSURE CONTROLS

General advice	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	liquid; 20 °C; 1.013 hPa
Form	liquid
Colour	cloudy
Odour	characteristic
Odour Threshold	No valid method available
pH	5,5 - 7,5; 5 % active substance; 20 °C; STN EN 1262
Pour point	5 - 10 °C; 1.013 hPa; STN 65 6072
Boiling Point	No data available
Flash point	> 125 °C; 1.013 hPa; ASTM D 93
Evaporation rate	No data available
Flammability (solid, gas)	not applicable (liquid)
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	< 0,0015 hPa; 20 °C
Relative vapour density	> 1
Density	ca.0,955 g/cm3; 50 °C; 1.013 hPa; STN EN ISO 12185

Relative density	No data available
Water solubility	20 °C; 1.013 hPa; dispersible
Partition coefficient: n-octanol/water	Not applicable Justification: surface-active substance
Ignition temperature	No data available
Auto-ignition temperature	not auto-flammable
Viscosity, dynamic	ca. 21 mPas; 50 °C; STN EN ISO 3104
Viscosity, kinematic	ca. 22,0 mm2/s; 50 °C; (calculated)
Explosive properties	not expected based on structure and functional groups
Oxidizing properties	not expected based on structure and functional groups

9.2 Other data

None known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Note	Stable at normal ambient temperature and pressure.

10.2 Chemical stability

Note	No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	None known.

10.4 Conditions to avoid

Conditions to avoid	Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.

10.5 Incompatible materials to avoid

Materials to avoid	Strong acids and oxidizing agents;

10.6 Hazardous decomposition products

Hazardous decomposition products	No decomposition if stored and applied as directed.
Thermal decomposition	Hazardous decomposition products formed under fire conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): LD50 Rat: > 2.000 mg/kg own test results/literature values Category approach

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

Acute inhalation toxicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): No data available
Acute dermal toxicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): LD50 Rabbit: > 2.000 mg/kg; Category approach (literature value) Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Skin irritation	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Rabbit: not irritating own test results/literature values Category approach Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Eye irritation	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Rabbit: Irreversible effects on the eye Category approach own test results/literature values Causes serious eye damage.

Respiratory or skin sensitisation

Sensitisation	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Maximisation Test Guinea pig: not sensitizing Category approach (literature value) Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity in vitro	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): In vitro tests did not show mutagenic effects Category approach own test results/literature values
Genotoxicity in vivo	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): In vivo tests did not show mutagenic effects Category approach (literature value)
Remarks	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Based on available data, the classification criteria are not met.

Carcinogenicity

Carcinogenicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential. Category approach (literature value)
Remarks	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Based on available data, the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): No toxicity to reproduction Category approach (literature value)
RemarksReproductive	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO):

toxicity	Based on available data, the classification criteria are not met.
Teratogenicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Did not show teratogenic effects in animal experiments. Category approach (literature value)
Remarks-Teratogenicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Based on available data, the classification criteria are not met.

STOT - single exposure

Remarks	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Remarks	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Repeated dose toxicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Rat; Oral; 2 years NOAEL: 50 mg/kg (based on body weight and day) Target Organs: Heart, Liver, Kidney Symptoms: reduced body weight gain, increased relative organ weights Category approach (literature value)

Aspiration hazard

Aspiration toxicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Not applicable
Toxicological information	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Toxicokinetics Category approach The substance is expected to be rapidly absorbed and excreted. (literature value)

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): LC50 (96 h) Brachydanio rerio (zebrafish): > 1 - 10 mg/l ; semi-static test own test results/literature values Category approach
Toxicity to fish - Chronic toxicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): No data available
Toxicity to daphnia and other aquatic invertebrates	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): EC50 (48 h) Daphnia magna (Water flea): > 1 - 10 mg/l ; static test; own test results/literature values Category approach
Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): NOEC (21 d) Daphnia (water flea): > 0,1 - 1 mg/l; (literature value)
	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO):

	EC10 Daphnia (water flea): > 0,1 - 1 mg/l; reproduction rate; OECD Test Guideline 211; (literature value) Category approach
Toxicity to aquatic plants	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): EC50 (72 h) Desmodesmus subspicatus (green algae): > 1 - 10 mg/l ; static test; own test results/literature values; Category approach
Toxicity to bacteria	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): EC50 activated sludge: 140 mg/l; Respiration inhibition Category approach (literature value)
Toxicity to terrestrial flora	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): emergence, growth; NOEC: 10 mg/kg; Lepidium sativum (cress); OECD Test Guideline 208 own test results/literature values Category approach
Toxicity for other terrestrial non-mammalian fauna	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): No data available

12.2 Persistence and degradability

Biodegradability	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Readily biodegradable.; > 60 %; 28 d; aerobic; OECD Test Guideline 301B own test results/literature values Category approach

12.3 Bioaccumulative potential

Bioaccumulation	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Bioaccumulation is unlikely. (literature value)

12.4 Mobility in soil

Mobility	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Adsorption/Soil; Koc: > 5000; QSAR (literature value) immobile strong adsorption to soil

12.5 Results of PBT and vPvB assessment

Results of PBT assessment	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

General advice	Alcohols, C13-15- branched and linear, ethoxylated (>2.5 moles EO): Harmful to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product	Can be incinerated, when in compliance with local regulations.
waste code of the European Union: EWC	A waste code in accordance with the European Waste Catalogue (EWC) may not be assigned to this product since it admits of a classification only when the consumer uses it for some purpose. The waste code must be determined in

agreement with the regional waste disposal authority or company.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.2 Proper shipping name

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.3 Transport hazard class

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.4 Packing group

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.5 Environmental hazards

ADR	Environmentally hazardous	no
RID	Environmentally hazardous	no
ADN	Environmentally hazardous	no
IMDG	Marine pollutant	no
ICAO/IATA	Environmentally hazardous	no

14.6 Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Ship type	2
Pollution category	Y
Remarks	MARPOL NAME: Alcohol (C12–C16) poly(1-6) ethoxylates

SECTION 15: REGULATORY INFORMATION

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

Occupational restrictions Employment restrictions for children and young workers in accordance with Directive 94/33/EC and the respective national provisions are to be observed.

NATIONAL/OTHER REGULATIONS

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

list entry in the directive:: Not applicable

Other regulations This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

NOTIFICATION STATUS

Switzerland. Consolidated Inventory	CH INV	listed (product or constituents are listed)
US. Toxic Substances Control Act	TSCA	listed (product or constituents are listed)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	DSL	restricted (product or constituents are listed with quantity restrictions)
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	listed (product or constituents are listed)
Japan. Kashin-Hou Law List	ENCS (JP)	listed (product or constituents are listed)
Japan. Industrial Safety & Health Law (ISHL) List	ISHL (JP)	listed (product or constituents are listed)
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	listed (product or constituents are listed)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	listed (product or constituents are listed)
China. Inventory of Existing Chemical Substances	INV (CN)	listed (product or constituents are listed)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	NZIOC	listed (product or constituents are listed)
Taiwan Chemical Substance Inventory (TCSI)	TCSI	listed (product or constituents are listed)

Please note: the names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in chapter 3.

15.2 Chemical safety assessment

Alcohols, C13-15, branched and linear, ethoxylated (>2.5 moles EO) (CAS 157627-86-6)

A Chemical Safety Assessment is not required for this substance (exempted from obligation to register).

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

Safety datasheet sections which have been updated:

1. Identification of the substance/mixture and of the company/undertaking
2. Hazards identification
3. Composition/information on ingredients
7. Handling and storage
8. Exposure controls/personal protection
9. Physical and chemical properties
11. Toxicological information
12. Ecological information
14. Transport information
15. Regulatory information

Further information:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Key or legend to abbreviations and acronyms used in the safety data sheet

ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
BCF	Bioconcentration factor
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
DSL	Domestic Substances List
EC…	Effect concentration ... %
ENCS	Existing Notified Chemical Substances (Japan)
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods

IMO	International Maritime Organization
ISHL	Industrial Safety and Health Law (Japan)
ISO	International Organization for Standardization
IUAPC	International Union of Pure and Applied Chemistry
KECI	Korea Existing Chemicals Inventory
LC…	Lethal Concentration, ...%
LD…	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NDSL	Non-Domestic Substances List
NOAEL	no observable adverse effect level
NOEL/NOEC	No Observed-effect level/concentration
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative, toxic
PICCS	Philippine Inventory of Chemicals and Chemical Substances
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport international ferroviaire de marchandises dangereuses
TG	Test Guideline
TRGS	Technische Regeln für Gefahrstoffe
TSCA	Toxic Substances Control Act
vPvB	very persistent, very bioaccumulative
WGK	Wassergefährdungsklasse