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Rel. # 3 on 13/01/2020

## Technical note

### SILICON LG 50

#### MAIN FEATURES

In the presence of air, the SILICON LG have practically unlimited stability up to temperatures of 150 ° C. By absolutely excluding the presence of air, SILICON LG can withstand thermal stresses up to peaks of about 300 ° C. A characteristic property of SILICON LG is the low surface tension. A low surface tension is equivalent to a large surface activity. The surface tension of SILICON LG has a value of 19-21 nN/m<sup>1</sup> (generally lower than that of organic solvents) and tends to increase indefinitely with the increase in viscosity. SILICON LG are soluble in aromatic and aliphatic hydrocarbons, higher alcohols, ethers, esters and chlorinated hydrocarbons, such as: petrol, benzol, toluene, ester, butyl alcohol, amyl alcohol, ethyl acetate, butyl acetate, carbon tetrachloride, chloroform, trichlorethylene.

They are insoluble in water, methanol and ethylene glycol.

The solubility of the gases in SILICON LG is relatively high and practically independent of temperature. At room temperature and normal pressure the following quantities in vol. Are soluble in one gram of SILICON LG. of gas:

air ca 0.190 cm<sup>3</sup>

nitrogen ca 0.170 cm<sup>3</sup>

carbon dioxide ca 1.00 cm<sup>3</sup>

Acid number mg HCL/Kg fluid: 1

#### CHEMICAL-PHYSICAL FEATURES

Appearance: Clear colorless liquid

Odour: Odorless

pH: 7,0 +- 0,5

Melting point/freezing point: -55 °C about

Initial boiling point and boiling range: >200°C

Flash point: 280°C

Flammability (solid, gas): >400°C

Vapour pressure: < 0,1 hPa (20 °C)

Relative density: 0,96 (20 °C) about

Solubility: Marginally insoluble in acetone and ethanol, miscible

Water solubility: Slightly soluble

Auto-ignition temperature: > 400 °C

Decomposition temperature: > 200 °C

Viscosity: 50 mm<sup>2</sup>/S (25°C)

Oxidising properties: Non-oxidant (based on the structure-activity relationship)

Weight loss (%): 0.4 max. (SOLI0002)

Acidity (ppm): 1 max. (CHEM0004)

#### APPLICATIONS

SILICON LG50 is suitable for the preparation of:

Release agents - release agents, anti-adhesives for molding rubber and plastic; resistant to high temperatures, avoids adhesion to the mold surfaces, leaves no residue.

Preparation of lubricants for plastic and rubber bearings, general lubrication, water repellents, hydraulic fluids - for shock absorbers etc. , with high viscosity index. Dielectric liquids - high stability in hot and cold, dielectric power, water repellent - glass, ceramic, laminates, textile industry.

Cosmetic and dermatological preparations - skin creams, sunscreens, hair preparations, insect repellents, creams and polishes - for cars, furniture, floors.

#### TIPS FOR USE

In adequate storage conditions SILICON LG have practically unlimited stability; they do not form sediments, they do not show color variations and acidity index even after long periods of time. In the presence of water they show cloudiness from emulsification.

SILICON LGs are not very reactive and resist water, organic solvents, pure oxygen, many other chemical agents. In contact with almost all metals, they remain unchanged; they are decomposed by highly oxidizing substances such as concentrated nitric acid and elemental chlorine, particularly at high temperatures.

They are odorless, tasteless and transparent, non-toxic and absolutely harmless from a physiological point of view. Thanks to the



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ability to form water repellent protective films and aqueous solutions, they are raw material for cosmetics and dermatology.

#### PRECAUTIONS FOR USE

This product does not present any special risk if used according to our recommendations and applied correctly. A safety data sheet in compliance with the EU legislation is available from your sales advisor.  
Store possibly indoors. If it is stored outdoors, keep the kegs in a horizontal position and cover them with a lid to avoid water infiltration. Do not store at temperatures above 60 °C or directly in the sun as it is good to keep them in places not subject to frost. Protect the environment, avoid dispersion of used oil and containers.

#### PACKAGING

Contact the commercial office.

#### CLASSIFICATION AND LABELLING

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:  
None

Hazard Class and Category Code(s):  
Nonhazardous

Hazard statement Code(s):  
Nonhazardous

UN Number: 0000

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