TO FIND THE PERFECT GREASE THICKENER WE HAVE EXPERIMENTED A LOT.

SO THAT YOU DON'T HAVE TO.

KOMAD 8418
A LUBRICATING GREASE THICKENER

KOMAD 8418 is one of the raw materials used in the manufacture of food grade aluminium-complex lubricating greases.

Using KOMAD 8418, the grease manufacturing process is quick and simple. Only three materials, base oil, KOMAD 8418 and benzoic acid are needed.

Product description

KOMAD 8418 is one of the raw materials used in the manufacture of food grade aluminium-complex lubricating greases. Chemically it is aluminium-oxo-stearate, dissolved in white oil ISO VG 46.

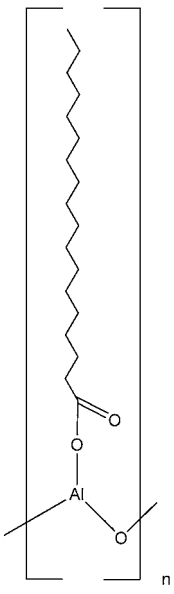
It can be characterised by the following formula:

It is a viscous honeylike liquid, easy to handle by heating up to 60-70°C in a warm chamber. It has NSF HX 1 approval issued under NSF Registration No. 144974.

Product benefits

In comparison with other aluminium thickeners available for lubricating grease production, the main advantages of KOMAD 8418 are the following:

- A quick and simple way of grease manufacturing
- Good storage stability
- Moderate flammability and no fire hazard
- Lack of significant alcohol release during grease production
- An alcohol condensation system is not necessary
- Less energy consumption, more uniform product quality, better reproducibility



Structure of the Komad 8418 chemicals

Typical properties

CHARACTERISTICS	KOMAD 8418
Aluminium content, mass %	4.0 - 4.3
Stearic-acid content, mass %	40.0 - 43.0
Flash point (COC), °C	min. 170

Storage and handling instruction

KOMAD 8418 is shipped in 213 litre steel drums, each of 180 kg in net weight. The aluminium compound is sensitive to water so the product must be stored in a dry place. The upper layer of exposed KOMAD 8418 reacts with the moisture content of the air resulting in a hard surface „skin". KOMAD 8418 can be stored in drums tightly closed for several months without any quality loss problems.

It is advisable to heat it up to 60–70°C before use.

Application

Using KOMAD 8418, the grease manufacturing process is quick and simple. Only three materials, base oil, KOMAD 8418 and benzoic acid are needed. Grease composition depends on the type of base oil used and the NLGI grade to be produced.

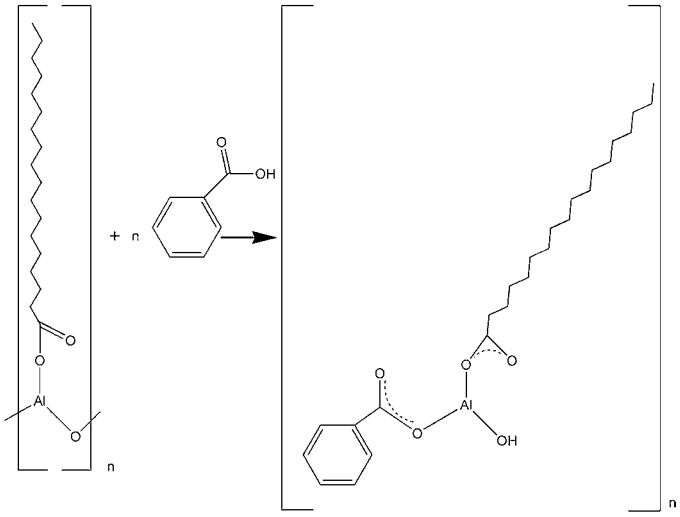
In general, at NLGI-2 consistency, approximate grease composition is:

Base oil (46 mm²/s at 40°C)	85.6 mass %
KOMAD 8418	12.2 mass %
Benzoic acid	2.2 mass %

Use of higher VI base oil needs a lower ratio of KOMAD 8418 and benzoic acid.

Procedure

Pour the whole quantity of base oil mixture into a closed kettle. Start stirring and heating. At about 60°C, powdered benzoic acid is added. After the benzoic acid dissolves, pre warmed KOMAD 8418 is charged at 70–80°C. In the saponification stage – up to 150°C – a slight odour of isopropyl alcohol can be observed and so it is advisable to ventilate the system. A quicker and appropriate stirring of the grease can also be useful at thisstage to reach a more homogenous and stable grease structure. The maximum temperature is about 200–220°C, mainly depending on the type of base oil used. After reaching the maximum temperature, the grease is immediately cooled. Finishing operations under 80°C are standard: blending with additives, milling, de-aeration and packaging.



Chemical reaction during grease production

Safety

KOMAD 8418 offers no specific hazard to the environment. In contact with water, it decomposes quickly into aluminium hydroxide and stearic acid and becomes a powder-like substance. This is why spillages can easily be avoided by pouring on water and then brushing. KOMAD 8418 offers no specific toxic or caustic effects. Contact with the skin will not cause skin irritation.

Packaging

In new produced 213 litres steel drum with snap on cover.

Ordering information

Manufactured and distributed by:
MOL-LUB Ltd.
H-2931 Almásfüzitő, Fő u. 21.
lubricants@mol.hu