Polwax S.A.	PRODUCT TECHNICAL SPECIFICATION	No.	WT-2011/LP-62
	SALWAX	Edition no.	12
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1. INTRODUCTION

1.1 Subject. The subject of this document is an anticaking agent for nitrate-type fertilizers and calcium ammonium nitrate.

1.2 Range of the WT subject usage. The product is used for protecting granules of fertilizers against solidation and dust raising.

2. LABELLING

2.1 Labelling examples.

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2.2 Labelling elements.

Name	**SALWAX** Contains amine (tallow alkyl, hydrogenated)
Pictograms	
Signal word:	Danger
Hazard statements	H318: Causes serious eye damage. H400: Very toxic to aquatic organisms. H410: Very toxic to aquatic life with long lasting effects.
Precautionary statements	P280: Wear protective glasses P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. continue rinsing. P273 Avoid release to the environment.

3. QUALITY REQUIREMENTS AND TEST METHODS

3.1 Standard parameters and test methods.

Table 1 – Quality requirements valid for each batch of the product:

Parameters	Unit	**SALWAX** Parameter value	Test method
1	2	3	4
a) Congealing point	°C	55 - 65	PN-ISO 2207:2011 ASTM D 938

b) Flash point	°C	min. 200	PN-EN ISO 2592:2017-10 ASTM D 92
c) Kinematic viscosity at 100°C	mm^2/s	8 - 11	PN-EN ISO 3104:2004
d) Kinematic viscosity at 75°C	mm^2/s	min. 15	PN-EN ISO 3104:2004
e) Total Base	mg KOH/g	Evaluated, indicated in certificate	PN-ISO 3771:2012
f) Total Amine Value	mg KOH/g	19,5 - 25	Point 3.3 of technical specification
g) Density at 15°C	g/cm^3	Evaluated, indicated in certificate	PN-EN ISO 3675:2004
h) Water Content	%	max. 0,3	PN-ISO 3733:2008

3.2 Sample taking. According to PN-EN ISO 3170:2006.

3.3 Determination of amine content in the product. Determination of amine content in agent for fertilizers is held by potentiometric titration. The result corresponds to amount of potassium hydroxide in milligrams equivalent to alkalinity of 1 mg. of sample.

Apparatus:

- pH meter of accuracy 0,05 of pH unit equipped with external electrodes or equivalent titration set calibrated, according to producer instructions, for values pH 4,0; pH 7,0: pH 10,0.
- Calomel electrode of range 5-100^{o}C
- Magnetic stirrer with Teflon-covered stir
- Beaker 250 ml.
- Measuring cylinders 10 and 100 ml,
- Micro burette 10 ml of accuracy 0,02 ml,

Reagents:

- 2-propanol 99%,
- Hydrochloric acid 0,5N in 2-propanol,
- Mixture of 2-propanol (95ml) and water (5ml),
- Chloroform,

Procedure:

- Place 2 grams of melted sample of agent for fertilizers in a 250 ml beaker,
- Add 90 ml of chloroform and 10 ml of mixture of 2-propanol and water. Heat for about 1 minute.
- Cool to room temperature. Place magnetic stir into beaker and, while mixing start titration with 0,5N HCl.
- Record mV readings within 1ml intervals, as the ending point approaches record readings every 0,1ml,
- Draw titration curve,
- Ending point is the middle point of extremum of titration curve.

Calculations:

Total amine content = (V*N*56,1)/m

Where:
V – Volume of 0,5N HCl solution used for sample titration, ml,
N – Normality of the hydrochloric acid solution, mol/l
56,1 – calculation coefficient for KOH,
m – sample weight, g

4. PACKAGING, STORAGE AND TRANSPORTATION

4.1 Packaging. SALWAX is stored in the following way:
- Liquid loose in heated storage tanks,
- Cans of capacity 200l.

The method of packaging and storage is in accordance with the regulations of transportation of petroleum products described in national and international transportation law.

It is admitted to use other kind of packages previously agreed between recipient, producer and carrier, in condition that product is protected well.
On each package should be placed a label with at least following information:
a) name of producer,
b) address of producer,
c) labelling according to point 2,
d) mass-net or volume,
e) date of production,
f) control number.

4.2 Storage. The product should be stored in following way:

- liquid state, at a temperature of 60-85 °C, in closed tanks equipped with heating system, protecting the product against moisture and mechanical impurities, away from heat sources. The Shelf Life of a product stored in accordance with the above guidelines is 6 months.

- solid state in closed packages, protecting the product against moisture and mechanical impurities, away from heat sources, at a temperature not exceeding 25 °C, protected from direct sunlight. The Shelf Life of a product stored in accordance with the above guidelines is 12 months.

4.3 Transportation. The product is a product posing a threat in transport according to ADR / RID. Detailed information on transportation is provided in the Material Safety Data Sheet: KCh/ LP/081 in Section 14.

5. ADDITIONAL INFORMATION

5.1 Institution preparing WT: Polwax S.A., Jasło, Poland

5.2 Standards and referenced documents

PN-EN ISO 3170:2006 – Petroleum liquids. Manual sampling.

Regulation of the European Parliament and Council Regulation (EC) No 1272/2008 of 16 December 2008. in on classification, labeling and packaging of substances and mixtures, and amending and repealing Directive 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Official Journal EU L 353/2 of 31.12.2008).

Other standards related: table 1

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