sasol
reaching new frontiers

Linear alcohols

NACOL® C_6–C_{22} single fractions
NAFOL® C_8–C_{28} blends

Sasol Olefins & Surfactants

Contents

About us

Sasol Olefins & Surfactants is a leading global producer of surfactants, surfactant intermediates, high-purity alumina and related specialty products. The company is part of Sasol Limited, an integrated energy and chemicals group based in Johannesburg, South Africa.

Sasol O&S manufactures and markets more than 700 organic and inorganic products, including the world's largest and most diversified portfolio of C6+ alcohol products and surfactant derivatives. More than 3,000 customers across the globe rely on the company's broad range of products, which also includes such organic intermediates as linear alkyl benzene, ethylene and ethylene oxide, as well as inorganic specialty chemicals such as alumina (hydroxides and oxides), silica-alumina and hydrotalcites.

Sasol O&S' products are used in detergents, cleaners, oil and gas recovery, paint and coatings, leather and metal processing, personal care products and lubricants as well as in catalysts, high-performance abrasives and polymer additives.

Sasol O&S has a large global footprint with presence in 15 countries. Alongside its ten production sites in six countries – Germany, Italy, Slovakia, the US, South Africa and China – the company operates an alcohols plant in Lianyungang, China, under a joint venture with Wilmar China Investment (Yihai). O&S has its international headquarters in Hamburg, Germany.

1. General information

Sasol Olefins & Surfactants GmbH is a worldwide market leader of linear, even-numbered, saturated alcohols. Our alcohols are manufactured from petrochemical and natural raw materials in different, fully independent production processes. This unique combination of processes yields chemically identical products and ensures exceptional flexibility, a high quality standard, supply security, and a wide variety of products.

Sasol alcohols can be used to manufacture a multitude of products.

We market our linear alcohols worldwide under the following trademarks:

- **NACOL®** – Pure cuts of linear alcohols C_6 to C_{22}
- **NAFOL®**– Blends of linear alcohols C_8 to C_{28}

Our diversified product range additionally includes special blends manufactured according to customer specifications.

2. Applications

Plastics additives
- Linear plasticizers
- Lubricants
- Stabilizers
- Polymerization auxiliaries

Cosmetics and pharmaceuticals
- Skin care
- Hair care
- Toiletries
- Decorative cosmetics
- Perfume and fragrances

Water evaporation retardants

Defoamers for the paper industry

Pour point depressants for crude oil

Additives for the leather and textile industries
- Fibre finishes
- Spin preparations
- Wetting aids
- Levelling aids
- Softeners

Viscosity Index Improvers

Flotation aids

Detergents and cleaners
- Detergents
- Powders
- Liquid detergents
- Cleaners
- Laundry softeners

Metal processing
- Coupling agents
- Aluminium rolling oils
- Hydraulic oils
- Metal working fluids

Agrochemicals

Flavours and fragrances

Paints, inks, coatings and adhesives
- Coupling aids
- Wetting aids
- Levelling aids
- Digital printing inks
- Surface modifiers

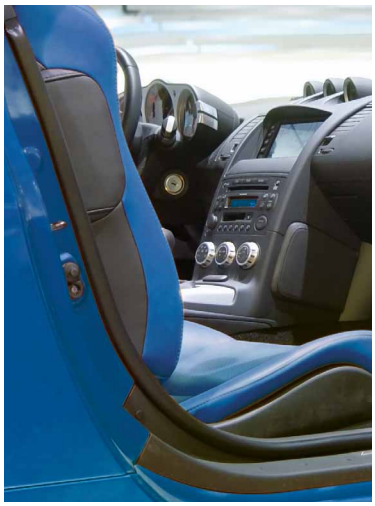
3. Other products and trademarks

Sasol Germany GmbH produces the following specialities based on the linear alcohols:

GALENOL®	Self emulsifying blends of linear alcohols
ISOCARB®	Defined branched Guerbet acids C_{12} to C_{32}
LINPLAST®	Plasticizers made from alcohols
NACOL® Ether	Linear di-n-alkyl ethers C_{12} to C_{36}
PARAFOL®	High purity normal paraffin cuts C_{12} to C_{22}

Product specific brochures are available with detailed information for ISOFOL® alcohols, ISOCARB® acids, NACOL® ethers and PARAFOL® pure cut paraffins.

Additional information on GALENOL® and LINPLAST® can be requested by contacting the local sales office listed on the back of the brochure.



4. NACOL®

		NACOL® 6-98	NACOL® 8-98	NACOL® 8-99
Chemical name		1-hexanol	1-octanol	1-octanol
Appearance at ambient temperature		clear, colourless liquid	clear, colourless liquid	clear, colourless liquid
Sales specification				
Purity	[wt. %]	98 min.	98 min.	99 min.
Colour	[Hazen]	10 max.	10 max.	10 max.
Ester number	[mg KOH/g]	0.1 max.	0.1 max.	0.1 max.
Acid number	[mg KOH/g]	0.02 max.	0.03 max.	0.03 max.
Iodine number	[mg I/100 mg]	0.1 max.	0.1 max.	0.1 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.
Additional properties				
Pour point	[° C]	approx. -52	approx. -16	approx. -14
Solidification point	[° C]	—	—	—
Boiling range	[° C]	150–170	185–200	188–198
Flash point	[° C]	approx. 61	approx. 82	approx. 82
Molecular weight	[g/mol]	approx. 102	approx. 130	approx. 130
Hydroxyl number	[mg KOH/g]	540–555	424–432	428–435

		NACOL® 10-97	NACOL®10-99	NACOL® 12-96	NACOL® 12-99
Chemical name		1-decanol	1-decanol	1-dodecanol	1-dodecanol
Appearance at ambient temperature		clear, colourless liquid	clear, colourless liquid	clear to cloudy, colourless liquid	clear to cloudy, colourless liquid
Sales specification					
Purity	[wt. %]	97.5 min.	99 min.	96.5 min.	99 min.
Colour	[Hazen]	10 max.	10 max.	10 max.	10 max.
Ester number	[mg KOH/g]	0.1 max.	0.1 max.	0.15 max.	0.15 max.
Acid number	[mg KOH/g]	0.03 max.	0.03 max.	0.03 max.	0.03 max.
Iodine number	[mg I/100 mg]	0.1 max.	0.1 max.	0.1 max.	0.1 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.	0.1 max.
Additional properties					
Pour point	[° C]	approx. 6	approx. 6	—	—
Solidification point	[° C]	—	—	22–24	23–25
Boiling range	[° C]	220–235	220–235	255–265	258–265
Flash point	[° C]	approx. 114	approx. 114	approx. 116	approx. 119
Molecular weight	[g/mol]	approx. 158	approx. 158	approx. 186	approx. 186
Hydroxyl number	[mg KOH/g]	350–357	350–357	295–305	299–304

Other pure cuts are available on request.

4. NACOL®

		NACOL® 14-95	NACOL® 14-98	NACOL® 16-95	NACOL® 16-98
Chemical name		1-tetradecanol	1-tetradecanol	1-hexadecanol	1-hexadecanol
Appearance at ambient temperature		white, solid	white, solid	white, solid	white, solid
Sales specification					
Purity	[wt. %]	95 min.	98.5 min.	95 min.	98 min.
Colour	[Hazen]	10 max.	10 max.	10 max.	10 max.
Ester number	[mg KOH/g]	0.2 max.	0.2 max.	0.5 max.	0.5 max.
Acid number	[mg KOH/g]	0.03 max.	0.03 max.	0.05 max.	0.05 max.
Iodine number	[mg I/100 mg]	0.1 max.	0.1 max.	0.25 max.	0.25 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.	0.1 max.
Additional properties					
Pour point	[° C]	—	—	—	—
Solidification point	[° C]	approx. 36–38	approx. 37–39	45–49	47–50
Boiling range	[° C]	275–290	270–290	300–320	305–320
Flash point	[° C]	approx. 145	approx. 145	approx. 175	approx. 175
Molecular weight	[g/mol]	approx. 214	approx. 214	approx. 242	approx. 242
Hydroxyl number	[mg KOH/g]	256–262	258–262	226–235	226–235

		NACOL® 18-98	NACOL® 18-99	NACOL® 20-95	NACOL® 22-98
Chemical name		1-octadecanol	1-octadecanol	1-eicosanol	1-docosanol
Appearance at ambient temperature		white, solid	white, solid	white, solid	white, solid
Sales specification					
Purity	[wt. %]	98 min.	99 min.	95 min.	98.5 min.
Colour	[Hazen]	10 max.	10 max.	20 max.	30 max.
Ester number	[mg KOH/g]	0.1 max.	0.1 max.	0.3 max.	0.2 max.
Acid number	[mg KOH/g]	0.05 max.	0.05 max.	0.05 max.	0.1 max.
Iodine number	[mg I/100 mg]	0.25 max.	0.15 max.	1 max.	0.5 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.	0.1 max.
Additional properties					
Pour point	[° C]	—	—	—	—
Solidification point	[° C]	approx. 56–59	approx. 56–59	62–66	approx. 68–71
Boiling range	[° C]	325–340	325–340	—	—
Flash point	[° C]	approx. 174	approx. 174	approx. 195	approx. 227
Molecular weight	[g/mol]	approx. 270	approx. 270	approx. 298	approx. 326
Hydroxyl number	[mg KOH/g]	200–210	200–210	182–192	168–171

Other pure cuts are available on request.

5. NAFOL®

		NAFOL® 810 D	NAFOL® 10 D	NAFOL® 1012
Chemical description		Alcohol blend C 8–10	Alcohol blend C 8–10	Alcohol blend C 10–14
Appearance at ambient temperature		clear, colourless liquid	clear, colourless liquid	clear, colourless liquid
Sales specification				
Alcohol composition	[wt. %]	nC_6–OH 1 max. nC_8–OH 43 ± 4 nC_{10}–OH 55 ± 4 nC_{12}–OH 1 max.	C_8–OH 10 max. C_{10}–OH 90 min. C_{12}–OH 4 max	C_8–OH 1 max. C_{10}–OH 85 ± 4 C_{12}–OH 8.5 ± 2 C_{14}–OH 6.5 ± 2 C_{16}–OH 0.5 max.
Colour	[Hazen]	10 max.	10 max.	10 max.
Ester number	[mg KOH/g]	0.1 max.	0.1 max.	0.1 max.
Acid number	[mg KOH/g]	0.03 max.	0.03 max.	0.03 max.
Iodine number	[mg I/100 mg]	0.1 max.	0.1 max.	0.1 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.
Additional properties				
Alcohol content	[wt. %]	99 min.	99 min.	99 min.
Solidification point	[° C]	approx. -11 [1]	approx. +3 [1]	-2 to +2
Boiling range	[° C]	195–240	215–240	220–285
Flash point	[° C]	approx. 85	approx. 95	approx. 105
Molecular weight	[g/mol]	143–148	155–162	160–168
Hydroxyl number	[mg KOH/g]	380–390	345–365	335–350

[1] Pour point

		NAFOL® 1214	NAFOL® 1214 S	NAFOL® 1214 Z
Chemical description		Alcohol blend C 12–14	Alcohol blend C 12–14	Alcohol blend C 12–14
Appearance at ambient temperature		clear to cloudy, colourless liquid	clear to cloudy, colourless liquid	clear to cloudy, colourless liquid
Sales specification				
Alcohol composition	[wt. %]	C_{10}–OH 1.5 max. C_{12}–OH 54 ± 3 C_{14}–OH 44 ± 3 C_{16}–OH 1.5 max.	C_{10}–OH 1.5 max. C_{12}–OH 70.5 ± 2.5 C_{14}–OH 27 ± 3 C_{16}–OH 1.5 max.	C_{10}–OH 1 max. C_{12}–OH 68 ± 3 C_{14}–OH 27 ± 3 C_{16}–OH 6 ± 2 C_{18}–OH 0.5 max.
Colour	[Hazen]	10 max.	10 max.	10 max.
Ester number	[mg KOH/g]	0.3 max.	0.3 max.	0.3 max.
Acid number	[mg KOH/g]	0.03 max.	0.03 max.	0.05 max.
Iodine number	[mg I/100 mg]	0.1 max.	0.1 max.	0.1 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.
Additional properties				
Alcohol content	[wt. %]	98.5 min.	98.5 min.	98.5 min.
Solidification point	[° C]	22–25	19–22	19–22
Boiling range	[° C]	265–295	260–290	255–305
Flash point	[° C]	approx. 130	approx. 130	approx. 137
Molecular weight	[g/mol]	195–203	190–197	193–200
Hydroxyl number	[mg KOH/g]	276–287	285–295	280–290

Other blends are available on request.

5. NAFOL®

		NAFOL® 1412 H	NAFOL® 1218	NAFOL® 1218 D
Chemical description		Alcohol blend C 12–14	Alcohol blend C 12–18	Alcohol blend C 12–18
Appearance at ambient temperature		white, solid	white, solid	white, solid
Sales specification				
Alcohol composition	[wt. %]	C_{10}–OH 1.5 max. C_{12}–OH 33 ± 3 C_{14}–OH 64 ± 4 C_{16}–OH 2 max.	C_{10}–OH 2 max. C_{12}–OH 40 ± 4 C_{14}–OH 30 ± 4 C_{16}–OH 18 ± 2 C_{18}–OH 10 ± 2 C_{20}–OH 1 max.	C_{10}–OH 1 max. C_{12}–OH 27 ± 3 C_{14}–OH 23 ± 3 C_{16}–OH 26 ± 5 C_{18}–OH 23 ± 5 C_{20}–OH 2 max.
Colour	[Hazen]	10 max.	10 max.	10 max.
Ester number	[mg KOH/g]	0.3 max.	0.5 max.	0.5 max.
Acid number	[mg KOH/g]	0.05 max.	0.05 max.	0.05 max.
Iodine number	[mg I/100 mg]	0.1 max.	0.2 max.	0.2 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.
Additional properties				
Alcohol content	[wt. %]	98.5 min.	98 min.	98 min.
Solidification point	[° C]	26–29	25–28	30–34
Boiling range	[° C]	265–300	270–335	270–340
Flash point	[° C]	approx. 130	approx. 145	approx. 135
Molecular weight	[g/mol]	197–208	204–216	218–224
Hydroxyl number	[mg KOH/g]	270–285	260–275	246–254

		NAFOL® 1218 K	NAFOL® 1618	NAFOL® 1618 H
Chemical description		Alcohol blend C 12–18	Alcohol blend C 16–18	Alcohol blend C 16–18
Appearance at ambient temperature		hazy, liquid	white, solid	white, solid
Sales specification				
Alcohol composition	wt. [%]	C_{10}–OH 3 max. C_{12}–OH 53 ± 5 C_{14}–OH 21 ± 3 C_{16}–OH 10 ± 2 C_{18}–OH 11 ± 2 C_{20}–OH 1 max.	C_{12}–OH 0.2 max. C_{14}–OH 2 max. C_{16}–OH 63 ± 4 C_{18}–OH 33 ± 4 C_{20}–OH 3 max. C_{22}–OH 0.2 max.	C_{12}–OH 0.2 max. C_{14}–OH 2 max. C_{16}–OH 48.5 ± 3.5 C_{18}–OH 48.5 ± 3.5 C_{20}–OH 3 max. C_{22}–OH 0.2 max.
Colour	[Hazen]	10 max.	10 max.	10 max.
Ester number	[mg KOH/g]	0.25 max.	0.8 max.	0.8 max.
Acid number	[mg KOH/g]	0.05 max.	0.05 max.	0.05 max.
Iodine number	[mg I/100 mg]	0.2 max.	0.4 max.	0.4 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.
Additional properties				
Alcohol content	[wt. %]	98 min.	98 min.	98 min.
Solidification point	[° C]	19–24	46–49	47–51
Boiling range	[° C]	270–335	300–350	300–355
Flash point	[° C]	approx. 140	approx. 176	approx. 180
Molecular weight	[g/mol]	204–212	248–260	253–262
Hydroxyl number	[mg KOH/g]	265–275	216–226	214–220

Other blends are available on request.

5. NAFOL®

		NAFOL® 1618 L	NAFOL® 1618 S	NAFOL® 1620
Chemical description		Alcohol blend C 16–18	Alcohol blend C 16–18	Alcohol blend C 16–20
Appearance at ambient temperature		white, solid	white, solid	white, solid
Sales specification				
Alcohol composition	[wt. %]	C_{12}–OH 0.2 max. C_{14}–OH 3 max. C_{16}–OH 73 ± 3 C_{18}–OH 22 ± 2 C_{20}–OH 2 max. C_{22}–OH 0.2 max.	C_{12}–OH 0.4 max. C_{14}–OH 4 max. C_{16}–OH 27 ± 4 C_{18}–OH 70 ± 5 C_{20}–OH 2 max. C_{22}–OH 0.2 max.	C_{12}–OH 0.2 max. C_{14}–OH 2 max. C_{16}–OH 51 ± 4 C_{18}–OH 30 ± 4 C_{20}–OH 14 ± 4 C_{22}–OH 3 max. C_{24}–OH 0.2 max.
Colour	[Hazen]	10 max.	10 max.	30 max.
Ester number	[mg KOH/g]	0.8 max.	0.8 max.	1 max.
Acid number	[mg KOH/g]	0.05 max.	0.05 max.	0.1 max.
Iodine number	[mg I/100 mg]	0.4 max.	0.4 max.	0.6 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.
Additional properties				
Alcohol content	[wt. %]	98 min.	98 min.	97 min.
Solidification point	[° C]	45–49	50–54	45–49
Boiling range	[° C]	300–355	300–355	> 300
Flash point	[° C]	approx. 170	approx. 183	approx. 176
Molecular weight	[g/mol]	250–260	257–267	255–269
Hydroxyl number	[mg KOH/g]	218–228	210–216	208–220

		NAFOL® 1822	NAFOL® 1822 B	NAFOL® 1822 C
Chemical description		Alcohol blend C 18–22	Alcohol blend C 18–22	Alcohol blend C 18–22
Appearance at ambient temperature		white, solid	white, solid	white, solid
Sales specification				
Alcohol composition	[wt. %]	C_{16}–OH 1 max. C_{18}–OH 43 ± 2 C_{20}–OH 11 ± 2 C_{22}–OH 44 ± 2 C_{24}–OH 1 max.	C_{16}–OH 1 max. C_{18}–OH 15 ± 1 C_{20}–OH 15 ± 1 C_{22}–OH 69 ± 2 C_{24}–OH 1 max.	C_{16}–OH 0.5 max. C_{18}–OH 5 ± 1 C_{20}–OH 17 ± 2 C_{22}–OH 76 ± 2 C_{24}–OH 1.5 max.
Colour	[Hazen]	20 max.	20 max.	20 max.
Ester number	[mg KOH/g]	0.15 max.	0.3 max.	0.3 max.
Acid number	[mg KOH/g]	0.05 max.	0.05 max.	0.05 max.
Iodine number	[mg I/100 mg]	0.5 max.	0.5 max.	0.6 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.
Additional properties				
Alcohol content	[wt. %]	98 min.	98.5 min.	98.5 min.
Solidification point	[° C]	57–61	63–65	64–69
Boiling range	[° C]	—	—	—
Flash point	[° C]	approx. 202	approx. 204	approx. 204
Molecular weight	[g/mol]	295–311	312–320	315–321
Hydroxyl number	[mg KOH/g]	185–190	175–180	173–177

Other blends are available on request.

5. NAFOL®

		NAFOL® 20 + A	NAFOL® 20 +	NAFOL® 2022
Chemical description		Alcohol blend C > = 18	Ethene, homo-polymer, oxidized , hydrolyzed, distn. residues, from C 16–18 alcs. manuf.	Alcohol blend C 18–24
Appearance at ambient temperature		pale yellow, solid	pale yellow, solid	white, solid
Sales specification				
Alcohol composition	[wt. %]	C_{16}–OH 2 max C_{18}–OH 25 ± 3 C_{20}–OH 25 ± 4 C_{22}–OH 35 ± 4 C_{24}–OH 7.5 ± 2.5 C_{26}–OH 4.5 ± 2.5	C_{16}–OH 0.5 max. C_{18}–OH 7 max. C_{20}–OH 42.5 ± 7.5 C_{22}–OH 35 ± 9 C_{24}–OH 13 ± 4 C_{26}–OH 7 ± 3	C_{16}–OH 0.5 max C_{18}–OH 7 max. C_{20}–OH 58 ± 6 C_{22}–OH 30 ± 5 C_{24}–OH 6 max
Colour	[Hazen]	1300 max.	1800 max.	100 max.
Ester number	[mg KOH/g]	10 max.	10 max.	4 max.
Acid number	[mg KOH/g]	0.1 max.	0.3 max.	1 max.
Iodine number	[mg I/100 mg]	20 max.	20 max.	3.5 max.
Water content	[wt. %]	0.1 max.	0.1 max.	0.1 max.
Additional properties				
Alcohol content	[wt. %]	approx. 83	approx. 80	95 min.
Solidification point	[° C]	54–58	55–60	55–61
Boiling range	[° C]	—	—	—
Flash point	[° C]	approx. 208	approx. 210	approx. 200
Molecular weight	[g/mol]	—	—	300–315
Hydroxyl number	[mg KOH/g]	145–165	135–155	160 –185

Other blends are available on request.

6. Viscosity

Viscosity is a measure of a fluid's ability to resist flow under gravity. The kinematic viscosity of a fluid is defined as the ratio of absolute or dynamic viscosity to its density.

The viscosity of a fluid is highly temperature dependant. For a liquid the kinematic viscosity will decrease with higher temperature, for a gas the kinematic viscosity will increase with higher temperature.

The temperature dependant kinematic viscosity of NACOL® and NAFOL® alcohols is shown in Figure 1 and Figure 2.

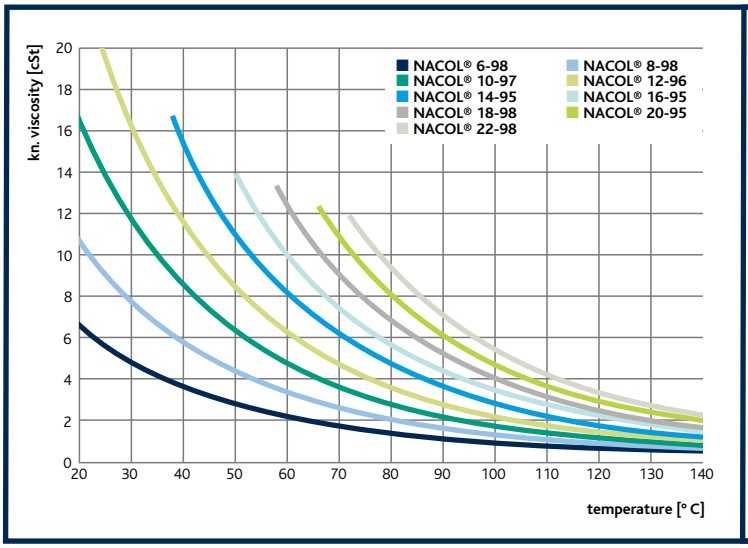


Figure 1
NACOL® alcohol viscosity vs temperature

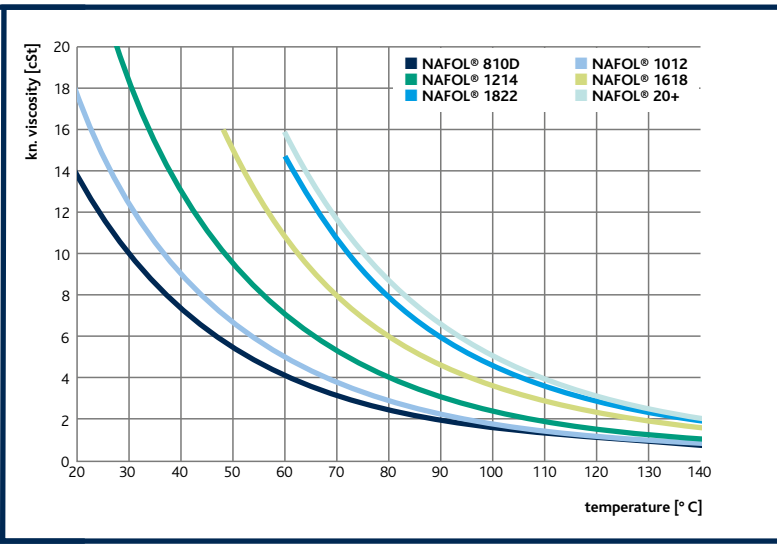


Figure 2
NAFOL® alcohol viscosity vs temperature

7. Density

Density is a measure of how much mass is contained in a given unit volume. The formal definition of density is mass per unit volume. Usually the density is expressed in grams per mL .

In general, density can be changed by changing either the pressure or the temperature. Increasing the pressure will always increase the density of a material. Increasing the temperature generally decreases the density, but there are notable exceptions to this generalisation.

The temperature dependant density of NACOL® and NAFOL® alcohols is shown in Figure 3 and Figure 4.

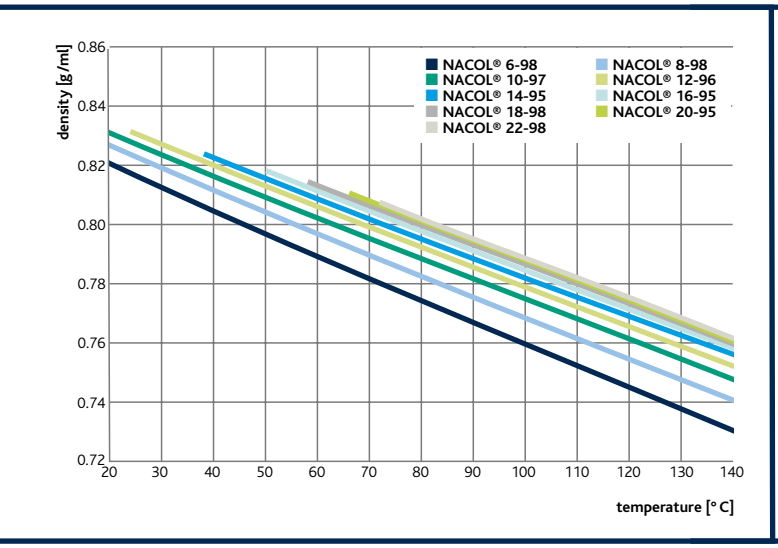


Figure 3
NACOL® alcohol density vs temperature

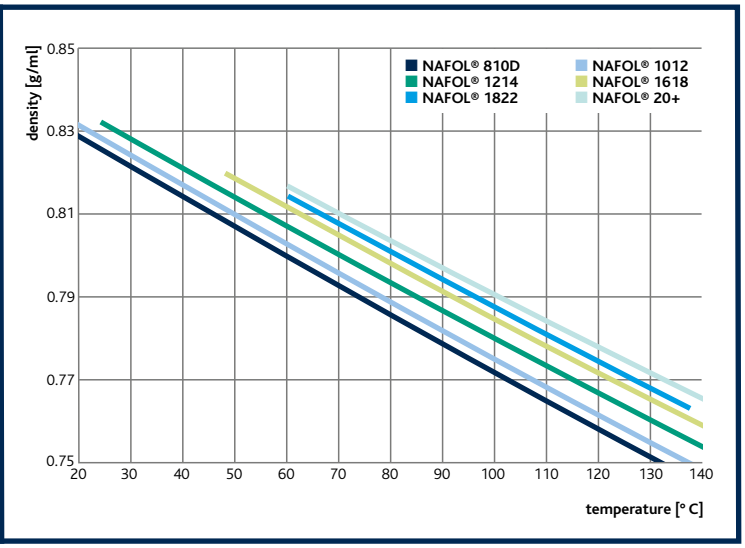
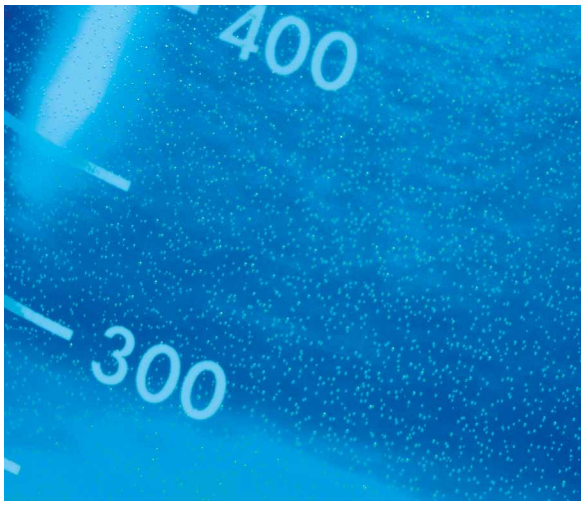


Figure 4
NAFOL® alcohol density vs temperature

8. Analytical methods

			Sasol method	with reference to
Acid number			600-31	DIN EN 14 104
Alcohol composition			600-11	Gas chromatographic method
Boiling range			600-21	DIN 51 751
Colour			600-40	EN ISO 6271-2
Density			600-23	DIN EN ISO 12 185
Ester number			600-33	
Flash point	Abel-Pensky	< 65° C	600-26 a	DIN 51 755
	Pensky-Martens	65° C–165° C	600-26 b	EN ISO 2719
	Cleveland	> 165° C	600-26 c	ISO 2592
Hydroxyl number			600-30	DIN 53 240
Iodine number			600-39	DIN EN 14 111
Molecular weight			600-19	
Pour point			600-20	DIN ISO 3016
Purity			600-12	Gaschromatographic method



9. Packaging and delivery

Bulk loading

All products can be delivered in bulk

- Road
  - 27 t per delivery for intermodal transportation
  - 24 t per delivery for conventional road tank vehicles
- Rail
  - 25 t per delivery for two-axle tank wagons
  - 55 t per delivery for four-axle tank wagons

Pastillated products

- Delivery of alcohols with a chain length of C14+
- Disposable packaging
- Please protect against direct sunlight and environmental influence

1. In polyethylene bags

- Suitable for foodstuffs
- Filling quantity: 20 kg/bag
- Pallet capacity: 24 bags per CP5 pallet (8 layers of 3 bags each), pallet covered by stretch hood
- Special packaging upon request

2. In polypropylene "Bigbags"

- Filling quantity: 300 or alternatively 500 kg per "Bigbag"
- Pallet capacity: 1 "Bigbag" per CP3 pallet ; pallets covered by stretch hood
- Please comply with emptying and transportation instructions (see strap)

Filled products

- Delivery of alcohols with chain lengths of C_6 to C_{22+} as well as all liquid products
- Special packaging upon request
- Disposable packaging
- Please protect against direct sunlight and environmental influence

1. In steel drums

- Filling quantity: 160 to 180 kg/drum (depending on product)
- Pallet capacity: 4 drums (screw-cap or screw-lid drums) on a CP3 pallet covered by stretch hood
- Closed under a nitrogen blanket

2. In Intermediate Bulk Containers (IBCs)

- Capacity of approximately 1 m^3
- Pallet capacity: 1 container securely mounted onto a CP1 pallet

10. Handling and storage

Storage temperature of alcohols C_{14+}

5 < T < 30° C

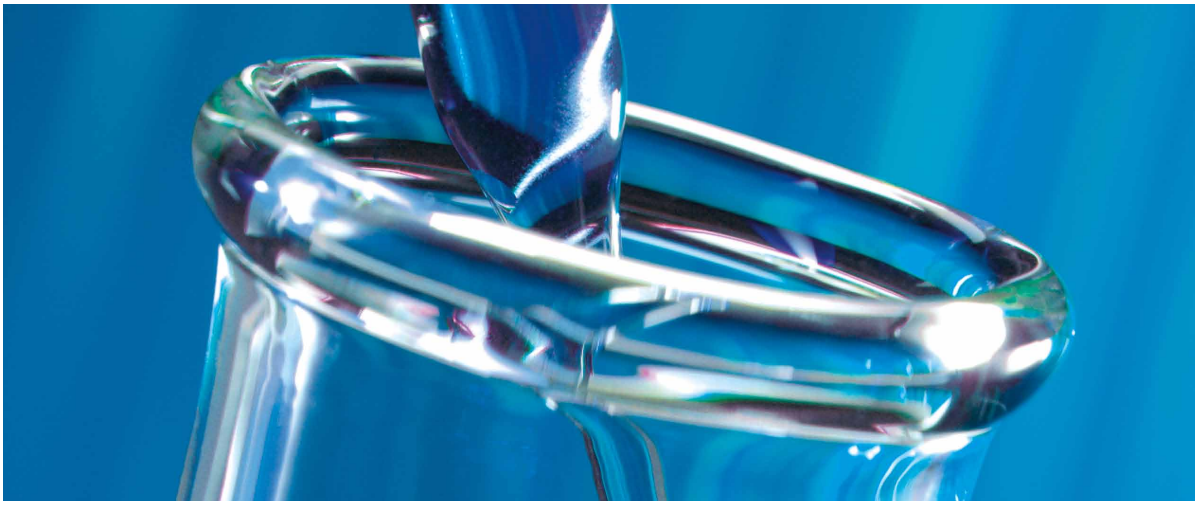
41 < T < 86° F

Storage temperature of all goods shipped in barrels or drums

5 < T < 30° C

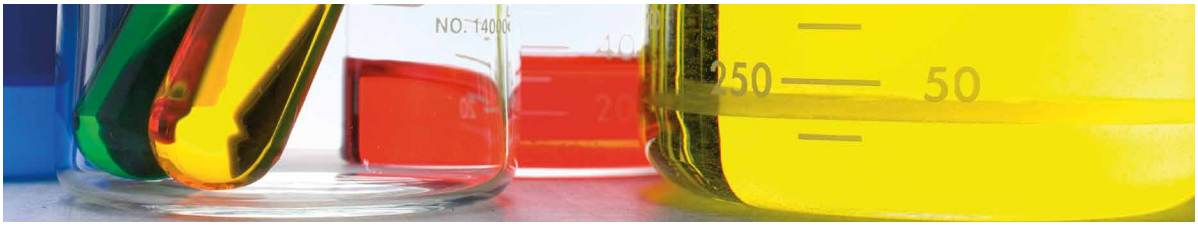
41 < T < 86° F

- Plant components that come into contact with the product,e.g. pumps, pipes, tank containers etc. should be made of stainless steel where possible; aluminium plant components are unsuitable; petrol resistant hose connections can be used and should be rinsed thoroughly after use
- In the case of tank storage, inert gas blanketing is required
- Tank heating is required in the case of alcohols exceeding C_{12}; tank temperature should not exceed 25° C above the setting point of the product; wall temperature of the heating coils should not exceed 100° C
- In order to prevent overheating of the product at the heating coils, the use of a stirring device in the tank is compulsory



11. Sasol O&S alcohol portfolio

LIAL®	Mixture of linear and monobranched alcohols from C_9 to C_{17}	Sasol Italy S.p.A. Augusta
ALCHEM®	Linear alcohol monocuts and blends from C_9 to C_{17}	Sasol Italy S.p.A. Augusta
ISALCHEM®	Monobranched alcohol monocuts and blends from C_9 to C_{17}	Sasol Italy S.p.A. Augusta
NACOL®	Pure cuts of linear alcohols C_6 to C_{22}	Sasol Germany GmbH Brunsbüttel
NAFOL®	Blends of linear alcohols C_8 to C_{28}	Sasol Germany GmbH Brunsbüttel
ISOFOL®	Defined branched Guerbet alcohols C_{12} to C_{32}	Sasol Germany GmbH Brunsbüttel
SAFOL®	Mixture of linear and branched alcohols C_{12} to C_{13}	Sasol Ltd Secunda
ALFOL®	Pure cuts and blends of linear Ziegler alcohols C_6 to C_{22}	Sasol North America Inc. Lake Charles



12. Registration

For registration status, please refer to the material safety data sheet or contact Sasol Olefins & Surfactants GmbH, info@de.sasol.com, Telephone +49 40 63684-1000

At your service

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