

# SASOL CHEMICALS

Solvents Division, Middle East and Asia



## **Overview**

## SASOL AT A GLANCE

Sasol is an international integrated chemicals and energy company that leverages technologies and the expertise of our 30 300 people working in 33 countries. We develop and commercialise technologies, and build and operate world-scale facilities to produce a range of high-value product stream, including liquid fuels, chemicals and low-carbon electricity.

## **SASOL CHEMICALS**

Sasol Chemicals produces and markets a range of commodity chemicals based on the Fischer Tropsch (FT) and natural gas value chains including feedstocks of ethane, ethylene, propylene and ammonia.

Final products include explosives, fertilisers, polymers (polyethylene, polypropylene, and polyvinyl chloride), mining reagents (Sodium cyanide), chloro-alkali chemicals and a range of alcohols, ketones, acrylate monomers, and other oxygenated solvents. Other Sasol Chemicals products, available through Performance Chemicals SBU include Organics, Inorganics & Catalyst, Wax and PCASG (Phenolics, Carbon, Ammonia and Speciality Gases).

Our products are used in countless applications in our daily lives to add value, security and comfort.

Typical applications include aerosols, cosmetics, fragrances, packaging, paints, adhesives, pharmaceuticals, polishes, printing, plastics, mining (particularly in gold extraction), pulp and paper, steel, textiles, water treatment and purification, agricultural fertilisers and chemicals. Our commercial explosives products and opencast services are employed by all of Southern Africa's leading mining houses.

## SASOL INDUSTRIAL CHEMICALS OVERVIEW

Solvents products are manufactured in world-class plants situated in Secunda and Sasolburg (South Africa) and Marl (Germany), which have a combined production capacity of ~1.2 million tons a year. Products are supplied to customers in over 80 countries through a network of sales offices in the Americas, Europe, Middle East and Asia and Sub-Saharan Africa.

The products of our Industrial Chemicals Division are important to a wide range of applications:

#### Acrylate monomers (Ethyl acrylate and Butyl acrylate)

Emulsions for surface coating, adhesives, textile, pulp and paper, water treatment and super absorbent polymer.

#### Ethanol

Pharmaceuticals, cosmetics, fragrances and surgical procedures.

**C3, C4 and other Alcohols** (n-Propanol, n-Butanol, iso-Butanol, mixed Alcohols and Alcohol blends) Printing and inks, antiseptics, fungicides, cosmetic preparations and other personal care applications, lacquer thinners, derivative manufacture such as plasticizers, alkylated glycol ethers, esters, acrylates, antifreeze and screen wash.

#### Esters (Ethyl acetate)

Formulations for adhesives and cosmetic, solvent for urethane resins, as process and extraction medium, printing and inks, lacquer thinners and coatings.

#### **Glycol ethers**

With applications in coatings and mining industry.

#### **Hydrocarbon Blends**

Solvents in enamels, other paints, varnishes, laquer thinners, degreasers, polishes and hand cleaners.

#### Ketones (Acetone, MIBK and MEK)

Solvent in paints, rubber additives and anti-oxidants, degreasing of metal surfaces, refinery de-waxing, pharmaceuticals, flavours and fragrances.

#### **Mining Chemicals**

Customised frother blends used as flotation/separation reagents in mineral processing.



## Product specifications

Product	Description	CAS No.	Molar Mass in g/mol	Boiling point in °C @ 1013 hPa	Density in g/ml @20 °C	Flash point in °C	Water, mass% max	Explosion limit in % by volume of air	Selected applications
Alcohols	<u> </u>		!			1			
Ethanol 99.9 UN/DB	Ethyl alcohol of 99.99 % volume purity	64-17-5	46.08	78	0.79	12	0.15	3.5 - 15.0	Raw material for adhesives, binders, fuels or fuel additives, aerosol propellants, anti-freezing agents, cleaning agents, disinfectants, cosmetic agents, fragrances, pharmaceuticals, toiletries, printing inks and printing ink additives.
Ethylol 99	Ethyl alcohol of 99.0 % mass purity	64-17-5	46.08	78	0.79	16	1.5	3.3 - 19	Raw material for adhesives, binders, fuels or fuel additives, aerosol propellants, anti-freezing agents, cleaning agents, disinfectants, cosmetic agents, fragrances, toiletries, printing inks and printing ink additives.
Ethylol 95	Ethyl alcohol of 95 % mass purity	64-17-5 71-23-8	Mixture	78	0.79	12	0.4	3.3 - 19	Used as a solvent in lacquers, lacquer thinners, etch primers, liquid printing inks, foundry dressings and stain removers. A raw material for the manufacture of xanthates, acetates and mixed alkylated glycol ethers.
n-Propanol	Normal propyl alcohol of 99.90 % mass purity	71-23-8	60.09	97	0.80	26	0.1	2.1 - 13.5	Used as a solvent in antiseptics applications, pharmaceutical preparations, drug synthesis, cosmetic preparations and flexographic inks. Raw material for the manufacture of normal propyl amines, normal propyl paraben, normal propyl phthalate and normal propyl acetate.
n-Butanol	n-Butanol of 99.8 % mass purity	71-36-3	74.12	117	0.81	35	0.03	1.4 - 11.3	Used as a solvent in lacquers, lacquer thinners, etch primers, liquid printing inks, foundry dressings and stain removers. Raw material for the manufacture of acetates, xanthates, glycol ethers and butylated resins.
Isobutanol	lsobutyl alcohol of 99.5 % mass purity	78-83-1	74.12	108	0.80	31	0.1	1.7 - 10.9	Used as a solvent in lacquers, lacquer thinners, etch primers, liquid printing inks, foundry dressings and stain removers. Raw material for the manufacture of acetates, xanthates, glycol ethers and butylated resins.
Methanol	Methyl alcohol of 99.90 % mass purity	67-56-1	32.04	64	0.79	12	0.1	6.0 - 36.5	Used as a solvent in adhesives, paint strippers and industrial detergents. Used in the production of MTBE.
Technical Grade Methanol	Methyl alcohol of 98.5 % mass purity	67-56-1	32.04	65	0.79	12	0.1	6.0 - 36.5	Used as a solvent in adhesives, paint strippers and industrial detergents.
Mixed Alcoho	ls								
Ethanol 95E5	Ethyl alcohol of 99.9% purity denatured with 5% (volume) ethyl acetate.	64-17-5 141-78-6	Mixture	77	0.79	13	0.3	3.3 - 19	Used in preparation of liquid printing inks for flexographic and gravure printing.
Ethyl alcohol (Precut)	Ethyl alcohol of 92.1% min volume purity	64-17-5	Mixture	77	0.79	< 10	0.4	3.2 - 18.3	Used as a solvent in domestic burners, cleaning agent, as a solvent in lacquers and varnishes. Can also be used as a fuel additive.
Isopropylol	C3 alcohol distillation cut	67-63-0 64-17-5 78-93-2	Mixture	82	0.79	26	0.1	3.3 - 19	Used as a solvent in lacquers, lacquer thinners, etch primers, liquid printing inks, disinfectants, fungicides, latex rubber production, foundry dressings, stain removers, antifreeze and as a fountain solution in lithographic printing.
lso-propylol (technical grade)	Ethyl alcohol blend of 60% mass purity	67-63-0 64-17-5	Mixture	77	0.79	14	0.1	3.3 - 19	Used as a solvent in lacquers, lacquer thinners, etch primers, liquid printing inks, disinfectants, fungicides, latex rubber production, foundry dressings, stain removers, antifreeze and as a fountain solution in lithographic printing.
Prop-BH	C3 /C4 alcohol distillation cut	Mixture	Mixture	97	0.8	26	0.2	2.1 - 13.5	Used as a solvent in lacquers, lacquer thinners, etch primers, liquid printing inks, disinfectants, fungicides, latex rubber production, foundry dressings, stain removers and as a fountain solution in lithographic printing, Raw material for the manufacture of xanthates, acetates and mixed alkylated glycol ethers.
Sabutol	C4 / C5 alcohol distillation cut	71-36-3 71-41-0	Mixture	117	0.81	32	0.1	1.4 - 11.2	Used as a solvent in paints, lacquer thinners, liquid printing inks, inline flexographic printing and dyes. Raw material for the manufactureof butylated resins, acetate and xanthates.
Pentylol	C5 alcohol distillation cut	Mixture	Mixture	124	0.82	43	0.1	1.4 - 16	Used as a solvent in the slow-drying latent solvent in lacquer thinners. Raw material for the manufacture of xanthates, other mining chemicals, insecticides, plasticisers and amyl acetate.
Hexylol	C5/C6 alcohol distillation cut	Mixture	Mixture	131	0.85	57	1	1.2 - 10	Used in plasticizer manufacturing. It is also a customised alcohol based frother blend used as flotation separation reagent in mineral processing for specific applications.



Product	Description	CAS No.	Molar Mass in g/mol	Boiling point in °C @ 1013 hPa	Density in g/ml @20 °C	Flash point in °C	Water, mass% max	Explosion limit in % by volume of air	Selected applications
Ketones					1				
Acetone	Acetone of 99.90 % mass purity	67-64-1	58.08	56	0.79	-17	0.3	2.5 - 13.0	Used as a chemical intermediate in Methyl Meth- acrylate (MMA), Bis-Phenol A (BPA), MIBK, DAA, and MIBC production. Used as a solvent in paints, inks, nail polish removers, acetylene cylinders, adhesive Also used as a solvent in the manufacture of pharmaceuticals, vitamins and cosmetics.
МЕК	Methyl ethyl ketone of 99.75 % mass purity	78-93-3	72.11	79	0.81	-6	0.05	1.5 - 11.5	Used in nitro-cellulose, polyester and most alkyd and phenolic resins, in degreasing of metal sur- faces, and in the extraction of fats, oils and waxes.
МІВК	Methyl isobutyl ketone of 99.5% mass purity	108-10-1	100.16	117	0.80	14	0.05	1.2 - 8.0	Used in nitro-cellulose and other natural and synthetic resins, adhesives, herbicides, and plastic Also used as an extractant for certain metals, and antibiotics and dewaxing of mineral oils. Other applications are production of synthetic leather, transparent paper, aluminium foil and degreasing of metal surfaces.
Esters									
Ethyl Acetate	Ethyl acetate of 99.80 % mass purity	141-78-6	88.11	77	0.90	-4	0.03	2.1 - 11.5	Used as a solvent in surface coatings, inks and as a process and extraction medium. Good solvent for a variety of resins including epoxies, urethanes, cellulosics, acrylics and vinyl in applications such a coatings for wood furniture and fixtures, container and closures, auto refinishing, for wood maintenance and marine. General solvent in formulations for products such as adhesives and cosmetics.
Acrylates									
Ethyl Acrylate	Ethyl acrylate of 99.5 % mass purity.	140-88-5	100.11	99	0.92	9	0.05	1.7 - 13.0	A versatile monomer to provide performance characteristics to polymer formulations for latex and solution copolymers, copolymer plastics and cross-linkable polymer systems. Major markets include surface coatings, textiles, adhesives and plastics.
Butyl Acrylate	n-Butyl acrylate of 99.5 % mass purity.	141-32-2	128.17	147	0.90	41	0.05	1.5 - 9.9	A versatile monomer which provides performance characteristics in polymer formulations for latex and solution co-polymers, copolymer plastics and cross-linkable polymer systems. Major markets include surface coatings, textiles, adhesives and plastics.
Glacial Acrylic Acid	Glacial acrylic acid of 99.5% purity	Acrylic acid	72.06	140.9 °C	1.05	53.5	0.1	No data available	Used as a feedstock for manufacturing acrylates. Also used as an intermediate in the production of super absorbent polymers and carbomer for the personal care industry, as well as water treatment chemicals. Other applications include pulp and paper, clay, textiles and surface coatings.
Glycol Ethers									
Butyl Glycol Ether (BGE)	Butyl glycol ether of 99% mass purity	Butyl gylcol ether	111-76-2	118.18	0.9	62	0.1	No data available	Used widely in the surface coating industry as a solvent. BGE reduces the viscosity in alky resin varnishes and acts as a property regulator, coalescer and flow improver in water based paints. Other applications include printing inks, cleansers and mineral oil emulsions, where BGE is used as a solubiliser. BGE has outstanding solvent power for many natural and synthetic resins as well as cellulose derivatives.
Butyl Triglycol Ether (BTGE)	Butyl triglycol ether of 70% mass purity	Butyl triglycol ether	143-22-6	277	0.98	138	0.2	No data available	Butyl triglycol ether (BTG) has high dissolving power for cellulose nitrate, many synthetic, natura resins and dyestuffs. BTG is used typically in cuttin and hydraulic oils, particularly in brake fluids.
Mining Chemio	cals								
Sasfroth 5	A mixture con- taining pentyl and higher alcohols	Mixture	Mixture	139	0.83	43	0.1	-	Raw material for the manufacture of xanthates, acetates, plasticisers and mining chemicals.
Sasfroth 10	Alcohol frother blend	Mixture	Mixture	131	0.85	57	1	-	Used in plasticizer manufacturing. It is also a customised alcohol based frother blend used as flotation separation reagent in mineral processing for specific applications.

DISCLAIMER

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#### SALES ENOUIRIES

Sacol Chemicals, has locations and representation in South Africa, Botswana, Lesotho, Namibia, Zambia, West Africa, the United States, Brazil, the United Kingdom, France, Belgium, Germany, Italy, the United Arab Emirates, Singapore, Hong Kong, China and Japan.

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