

Statement

January 2015

Sasol Base Chemicals Polypropylene – Regulatory Datasheet

The following products are covered under this statement:

HHR102	HNR101	CHR440	CUV448	ESV200
HKR102	HRV101	CKR448	CMR646	ESV255
HLR102	HSV103	CMR348	CMR648	ESV265
HMR100	HMR040	CPV340	CRV646	ETV265
HNR100	HRV140	CTV446	CRV648	
HNQ100	HMR127	CTV448		
HRV100	HTV145	CUV446		

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Base Chemicals

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Identity of manufacturer

All products listed above are produced by Sasol Base Chemicals, a division of Sasol Chemical Industries Limited (Reg. no. 1968/013914/06), a company incorporated and existing under the laws of South Africa. Sasol Base Chemicals produces polypropylene at its operations situated at:

Polymer Road
Sasol Works
Secunda
Republic of South Africa

Origin of Sasol Base Chemicals Polypropylene

All grades listed above are produced by Sasol Base Chemicals in the Republic of South Africa using:

- > 99% m/m feedstock produced in South Africa
- <1% m/m process chemicals and additives imported from various countries

Chemical Inventories

All substances intentionally used in the production of Sasol Base Chemicals Polypropylene are listed (or exempt from listing) in the following inventories:

- European Inventory of existing chemical substances (*EINECS*)
- US Toxic Substance Control Act Inventory (*TSCA*)
- Canadian Domestic Substances List (*DSL*)

Food contact – Europe

All of grades of Sasol Base Chemicals Polypropylene comply with the requirements of European regulations pertaining to food contact materials, namely:

- *Regulation (EC) No 1935/2004* of 27 October 2004 on materials and articles intended to come into contact with food (commonly known as the Framework Regulation on food contact materials).
- *Commission Regulation (EU) No 10/2011* of 14 January 2011 (as amended)

Compliance to the compositional requirements of Commission Regulation (EU) No 10/2011 is claimed based on the fact the grades listed above is produced from authorised substances listed in the Union list of authorised monomers, other starting substances, macromolecules obtained from microbial fermentation, additives and polymer production aids specified in Annex I Table 1 of the regulation.

Since specific restrictions apply to some grades (SML's, QM's etc.), users are referred to grade specific food contact statements issued by Sasol Base Chemicals from time to time.

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Food contact – United States of America

All grades of Sasol Base Chemicals Polypropylene comply with the requirements of the US Food and Drug Administration (FDA) governing the use of plastic materials in contact with food as published in the *Code of Federal Regulations 21 CFR*. Since specific restrictions (types of food & conditions of use) apply to some grades, users are referred to grade specific food contact statements issued by Sasol Base Chemicals from time to time.

Food contact – Other territories

Sasol Base Chemicals Polypropylene complies with the national regulations on food contact materials of various countries. Please contact Sasol Base Chemicals for more information if required.

Good Manufacturing Practice (GMP)

Sasol Base Chemicals Polypropylene is manufactured in accordance with the broad guidelines on quality control, quality assurance and documentation required for good manufacturing practice as outlined in *Regulation (EC) No 2023/2006* (although no formal audited GMP or HACCP system is in place at present).

Animal by-products (BSE & TSE)

Sasol Base Chemicals Polypropylene contains oleo-chemicals of animal origin (mainly beef tallow). According to the suppliers of these oleo-chemicals:

- It is derived from animal by-products which comply with the requirements of class 3 of *Regulation (EC) No 1774/2002*. This regulation requires the removal of certain high risk materials from animal by-products before processing
- During processing of the animal by-products into oleo-chemicals it is exposed to conditions which exceed:
 - the conditions of inactivation as described in *EMEA/410/01* (rev 3, July 2011)
 - the minimum physiochemical requirements as laid down by the 22nd Adaptation (*Directive 98/16/EC*) and 24th Adaptation (*Directive 2000/6/EC*) to the Cosmetics Directive (*Directive 76/768/EC*)

Based on this information Sasol Base Chemicals Polypropylene is not expected to pose any risk of transmitting Bovine Spongiform Encephalitis (BSE, “Mad cow disease”) or Transmissible Spongiform Encephalitis (TSE, Jakob-Creutzfeldt disease).

Allergens

Sasol Base Chemicals Polypropylene is manufactured without the intentional addition of any of substance derived from- or containing:

- Milk
- Eggs
- Fish
- Crustacean shellfish
- Tree nuts
- Wheat

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- Peanuts
- Soybeans
- Sesame seed
- Natural rubber latex
- Citrus fruit

Sasol Base Chemicals Polypropylene and/or articles made thereof can therefore be considered to be non-allergenic and is not expected to impart allergenic properties to foodstuffs packaged therein.

Religious laws (Kosher & Halaal)

Sasol Base Chemicals Polypropylene has not been certified as being Kosher or Halaal.

Biodegradation & Composting

Sasol Base Chemicals Polypropylene is not biodegradable or suitable for composting; articles made from it cannot be classified as compostable according to CEN Standard prEN 13432.

Medical applications (EP, USP, DMF)

Sasol Base Chemicals Polypropylene has not been tested in accordance with the guidelines provided in the *European Pharmacopeia* (EP) or the *US Pharmacopeia* (USP). Sasol Base Chemicals have not compiled a *Drug Master File* (DMF) for any of the grades listed above.

Genetically Modified Organisms (GMO)

Sasol Base Chemicals Polypropylene do not contain and is not obtained from any genetically modified organisms (GMOs) and can be seen as GMO-free according to the current regulations.

Phthalates

Sasol Base Chemicals Polypropylene is manufactured without the intentional addition of any of the substances listed below:

Substance	Acronym	CAS number
butylbenzyl phthalate	BBP	85-68-7
di-iso-decyl phthalate	DIDP	26761-40-0
di-(2-ethylhexyl) phthalate	DEHP or DOP	117-81-7
di-ethyl phthalate	DEP	84-66-2
di-cyclo-hexyl phthalate	DCHP	84-61-7
di-n-hexyl phthalate	DNHP	68515-50-4
di-2-methoxy-ethyl phthalate	DMEP	117-82-8
di-(methyl-cyclo-hexyl) phthalate	DMCHP	27987-25-3
di-methyl phthalate	DMP	131-11-3
di-iso-nonyl phthalate	DINP	28553-12-0

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di-iso-octyl phthalate	DIOP	27554-26-3
di-n-octyl phthalate	DNOP	117-84-0
di-iso-pentyl phthalate	DIPP	605-50-5
di-n-pentyl phthalate	DPP or DNPP	131-18-0
n-pentyl-iso-pentyl phthalate	NPIPP	84777-06-0
epoxidised soybean oil	ESBO	8013-07-8

Phthalates are commonly used in the preparation of catalyst systems for polypropylene. Technically unavoidable trace amounts of phthalates might therefore be present in Sasol Base Chemicals Polypropylene. The concentration of phthalates in Sasol Base Chemicals Polypropylene is however not expected to exceed 25ppm (0.0025% by mass). Many polypropylene producers do not declare the presence of phthalates in their products. Sasol Base Chemicals, being committed to *Responsible Care*® and *Product Stewardship*, prefers to make a disclosure to its customers in this regard.

Toy safety (EN71 & 2005/84/EC)

Sasol Base Chemicals Polypropylene is manufactured without the intentional addition of any substance listed in either *CEN EN71.3.2013* (17 elements including chromium (III) and (VI), tin and organic tin) or *CEN 71.9 table 2A – 2I* (Organic Chemical Compounds). Please be advised that Sasol Base Chemicals polypropylene has not been tested to ensure compliance to *EN7.3.2013* using the methods stipulated.

Directive 76/769/EEC as amended by *Directive 2005/84/EC* of 14 December 2005 limits the concentration of certain phthalates used in toys and childcare articles to 1000ppm (0.1% by mass). Based on the information in this statement; articles made exclusively from Sasol Base Chemicals polypropylene are expected to comply with the requirements of this directive.

Consumer Protection Safety Improvement Act (CPSIA)

The *Consumer Protection Safety Improvement Act (CPSIA)* is a law of the United States of America which came into effect with the signing of Bill HR 4040 on 14 August 2008. It imposes testing and documentation requirements on manufacturers of apparel, shoes, personal care products, accessories & jewellery, home furnishings, bedding, toys, electronics and video games, books, school supplies, educational materials and science kits.

CPSIA limits the level of lead to 90ppm and that of phthalates to 1000ppm in the consumer products listed above. Based on the information contained in this statement; articles made exclusively from Sasol Base Chemicals polypropylene are expected to comply with the requirements of CPSIA.

Foreseeable “Use & Abuse” scenarios as described by CPSIA are specific to the nature and design of consumer products made from polypropylene. Since virgin polypropylene granules as produced and sold by Sasol Base Chemicals are not intended for use by consumers, no statement can be made in this regard.

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Electrical & Electronic Equipment (RoHS & WEEE)

Directive 2011/65/EC of 8 June 2011 restricts the use of certain hazardous substances (cadmium, hexavalent chromium, lead, mercury, polybrominated biphenyls and polybrominated diphenyl esters) in electrical and electronic equipment in the European Union. Based on the information contained in this statement; articles made exclusively from Sasol Base Chemicals polypropylene are expected to comply with the requirements of this directive (commonly referred to as the “RoHS Directive”).

Directive 2002/96/EC of 27 January 2003 (as amended) regulate the collection, recycling and recovery of waste electrical and electronic equipment in the European Union. No substance contained in Sasol Base Chemicals Polypropylene will require articles made thereof to be removed or separately collected under the requirements of this directive (commonly referred to as the “WEEE Directive”).

Automotive (ELV & GADSL)

Directive 2000/53/EC of 18 September 2000 (as amended by *Directive 2002/525/EC* and *Directive 2005/673/EC*) limits the concentration of heavy metals (lead, mercury, cadmium, and hexavalent chromium) allowed in vehicle components in the European Union. Based on the information contained in this statement; articles made exclusively from Sasol Base Chemicals polypropylene are expected to comply with the requirements of this directive (commonly referred to as the “End Life Vehicles” or “ELV Directive”).

The *Global Automotive Declarable Substance List (GADSL)* either:

- prohibits
- require to be declared (above a threshold concentration)

the presence of listed substances in automotive components used in OECD (Organization for Economic Cooperation & Development) countries. No substance in Sasol Base Chemicals Polypropylene is either prohibited or declarable under the GADSL (statement based on 2007 GADSL version 3.0).

Packaging waste (94/62/EC & CONEG)

Directive 94/62/EC of 20 December 1994 limits the concentration of heavy metals (lead, mercury, cadmium, and hexavalent chromium) allowed in packaging waste in the European Union to 100ppm. None of these substances are intentionally added to Sasol Base Chemicals Polypropylene. Furthermore; Sasol Base Chemicals Polypropylene can be considered suitable for reuse, recycling and/or energy recovery, and may be labelled as such. Articles made exclusively from Sasol Base Chemicals Polypropylene are therefore expected to comply with the requirements of this directive (commonly referred to as the “Packaging Waste Directive”).

Regulations published by the Coalition of North-eastern Governors (CONEG) limits the concentration of heavy metals (lead, mercury, cadmium, and hexavalent chromium) allowed in packaging waste in certain states of the United States of America to 100ppm. Based on the information contained in this statement; articles made exclusively from Sasol Base Chemicals polypropylene are expected to comply with the requirements of this CONEG regulation.

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Drinking water (Proposition 65)

The *Safe Drinking Water and Toxic Enforcement Act of 1986* of the State of California regulates substances listed by California as causing cancer or birth defects or other reproductive harm. Articles made exclusively from Sasol Base Chemicals Polypropylene are not expected to lead to exposure which exceeds the maximum allowable limit of any substance listed under Proposition 65 and can therefore be sold without a Proposition 65 warning label.

Affected substances are listed in a document titled *Chemicals Known to the State to Cause Cancer or Reproductive Toxicity* by the Office of Environmental Health Hazard Assessment (OEHHA) of the Environmental Protection Agency of the State of California. This statement was compiled based on the version of the list published on 11 June 2010. Maximum allowable exposure limits are set by the OEHHA in a document titled *Proposition 65 Safe Harbour Levels*. This statement was compiled based on the version published in February 2009.

Epoxy derivatives (BADGE, BFDGE, NOGE)

Commission Regulation (EC) No 1895/2005 of 18 November 2005 imposes specific migration limits on certain epoxy derivatives, namely 2,2-bis(4-hydroxyphenyl)propane bis(2,3-epoxypropyl) ether (BADGE), bis(hydroxyphenyl)methane bis(2,3-epoxypropyl)ether (BFDGE) and other novolac glycidyl ethers (NOGE) in articles which come into contact with food. Based on the information contained in this statement; articles made exclusively from Sasol Base Chemicals Polypropylene are expected to comply with the requirements of this act.

REACH & SVHC's

Regulation (EC) No 1907/2006 of the European Parliament and of the Council (commonly known as REACH, for *Registration, Evaluation, Authorisation and Restriction of Chemicals*) came into effect on 01 June 2007. Its stated objectives are to ensure a high level of protection of human health and the environment as well as ensuring the free movement of substances, on their own, in preparations and in articles, while enhancing competitiveness and innovation. It should also promote the development of alternative methods for the assessment of the hazards of substances.

Polymers are exempt from pre-registration and registration under REACH (Article 2[9]). However, the monomers used in the production of polymers do have to be pre-registered and registered (Article 6[3]). Sasol Base Chemicals is not domiciled in the European Union and is therefore not allowed to participate directly in the REACH processes. To ensure that customers, agents & distributors in Europe retain the freedom to import, trade and use Sasol Base Chemicals' polypropylene; Sasol Solvents Germany GmbH has been appointed as Only Representative under REACH by Sasol Base Chemicals. It can be confirmed that the monomers used by Sasol Base Chemicals has been pre-registered before the relevant deadline.

As part of its responsibilities under REACH, Sasol Base Chemicals can confirm that no SVHC (Substance of Very High Concern), as defined in the updated candidate list published by ECHA, is expected to be present in Sasol Base Chemicals Polypropylene at a concentration exceeding 0.1% by mass.

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Given the dynamic nature of REACH at the time of writing, more detailed information on REACH & Sasol Base Chemicals Polypropylene is available from Sasol Base Chemicals on request.

Chemical substances absent

All grades of polypropylene produced and sold by Sasol Base Chemicals are manufactured without the intentional addition of any of the chemical substances or groups of substances listed below:

- Acrylamide
- Antimony
- Aromatic amines
- Arsenic
- Asbestos
- Azo-compounds
- Barium
- Benzene
- Benzophenone
- Bisphenol A
- Bisphenol A diglycidyl ether (BADGE)
- Bisphenol F diglycidyl ether (BFDGE)
- Butyl benzyl phthalate (BBP)
- Butylated hydroxy toluene (BHT)
- Cadmium
- Carbamide (urea)
- Hexavalent chromium
- Cobalt
- Copper
- Di-butyl tin
- Di-cyclo-hexyl phthalate (DCHP)
- Di-iso-decyl phthalate (DIDP)
- Di-(2-ethylhexyl) phthalate (DEHP/DOP)
- Di-ethyl phthalate (DEP)
- Di-n-hexyl phthalate (DNHP)
- Dioxins
- Di-methoxy-ethyl phthalate (DMEP)
- Di-methyl-cyclo-hexyl phthalate (DMCHP)
- Dimethyl fumarate (DMF)
- Dimethyl phthalate (DMP)
- Di-iso-nonyl phthalate (DINP)
- Di-iso-octyl phthalate (DIOP)
- Di-n-octyl phthalate (DNOP)
- Di-iso-pentyl phthalate (DIPP)
- Di-n-pentyl phthalate (DPP/DNPP)
- 2,6-Di-tert-butyl-4-methylphenol (BHT)
- Epichlorohydrin
- Epoxidised soybean oil (ESBO)
- Formaldehyde
- Hydrobenzophenone
- Lead
- Melamine
- Mercury
- 4-Methyl benzophenone (4MeBP)
- Mono-butyl tin
- Natural rubber latex
- Nickel
- Nitrosamines
- Nonylphenol

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- Novolac glycidyl ethers (NOGE)
- n-Pentyl-iso-pentyl phthalate (NIIPP)
- Organotin compounds (TBT, DBT, MBT)
- Polycyclic aromatic hydrocarbons (PAH's)
- Polybrominated biphenyls (PBB's)
- Polybrominated diphenyl ethers (PBDE's)
- Polychlorinated biphenyls (PCB's)
- Polychlorinated naphthalenes (PCN's)
- Perfluoro-octane sulfonate (PFOS)
- Perfluoro-octanoic acid (PFOA)
- Selenium
- Toluene
- Tri-butyl tin
- Tris(nonylphenyl) phosphate
- Vinyl acetate
- Xylene

Please be advised that Sasol Base Chemicals Polypropylene is not routinely analysed for the presence of these substances and that technically unavoidable traces might be present. However, the total combined level of all the substances listed above is expected to be below 0.1%*m/m* at all times.

To simplify the interpretation of this statement some substances are referred to in groups or using archaic nomenclature. Unique chemical identifiers of substances (IUPAC names & CAS or EINECS numbers) can be supplied by Sasol Base Chemicals on request.

Please do not hesitate to contact us should you require any further information.

Disclaimer:

- This statement replaces all earlier statements from Sasol Base Chemicals on the above mentioned topic(s). Please contact Sasol Base Chemicals regularly for up-to-date regulatory information.*
- This statement will remain valid until replaced by a newer version from Sasol Base Chemicals on the above mentioned topic.*
- Sasol Base Chemicals provides this information in good faith, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgement in determining its appropriateness for a particular purpose. Accordingly, Sasol Base Chemicals will not be responsible for damages resulting from use of or reliance upon this information.*
- This statement only applies to virgin polymer granules and powders as supplied by Sasol Base Chemicals and does not include:*
 - *Modification of the polymer by the intentional or accidental addition of any other substance to it.*
 - *Modification of the polymer resulting from processing.*
 - *Modification of the polymer resulting from storage.*
- This statement does not claim or guarantee that Sasol Base Chemicals' products are suitable for any specific application. Users of Sasol Base Chemicals' resins should independently access the regulatory status of their own products before claiming suitability for use or compliance with any regulation or product standard.*

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