Information Sheet

C706-21 NA HP Polypropylene Resin

This Information Sheet is intended for informational purposes only. Braskem makes no representations or warranties (express or implied) with respect to the accuracy or completeness of the information contained herein. This Information Sheet relates solely to Braskem polypropylene grade C706-21 NA HP Polypropylene Resin as currently manufactured by Braskem and not as incorporated in any grade or used in any process. Determination of the suitability or fitness of C706-21 NA HP Polypropylene Resin for any particular application is the sole responsibility of the purchaser of C706-21 NA HP Polypropylene Resin. Braskem specifically disclaims any warranty of merchantability or fitness for a particular purpose. The presence, absence or lack of information herein with respect to any particular international, national, federal, state, or local law, statute, regulation, order or rule ("Laws") should not be construed to mean that C706-21 NA HP Polypropylene Resin is regulated under, complies, with or is exempt from such laws.

U.S. Regulatory Information:

RELEVANT 21CFR REFERENCE:
When used unmodified and processed in accordance with good manufacturing practices for food contact applications, this grade will comply with the Federal Food, Drug, and Cosmetic Act as a food contact substance as a result of a premarket food contact notification (FCN) with an effective date of December 3, 2008 under FCN 843. This notification allows for use of this grade as articles or components of articles used in contact with all food types as described in Table 1 and Conditions of Use A-H as described in Table 2 of the FDA's "Definitions of Food Types and Conditions of Use for Food Contact Substances": (http://www.fda.gov/Food/FoodIngredientsPackaging/FoodContactSubstancesFCS/ucm109358.htm) .
The uses cited above are subject to good manufacturing practices and any limitations which are part of the notification and applicable regulations. The notification and regulations should be consulted for complete details.

ODOR & TASTE:
This grade, as manufactured by Braskem, meets the requirements of FDA for food contact conditions, as detailed above. Processing, length of storage, storage conditions, type of food coming into contact with a grade, or other possible conditions can affect whether odor or taste is imparted to food.

ANIMAL BASED:
After review of the operating parameters for this grade, this grade contains one or more additive(s)/substance(s) synthesized from animal extracts, i.e. hydrolysis, etc. of animal fats (tallow) into fatty acids. The manufacturing process of the fatty acids includes a multi-step chemical treatment involving high temperatures, high pressures, and long residence times. These processing conditions greatly exceed the requirements as specified in Section 6.4 of the "Note for Guidance on minimizing the risk of transmitting animal spongiform encephalopathy agents via human and veterinary medicinal products" (EMA/410/01 Rev. 3 – July 1, 2011), adopted by the European Commission and published in the Official Journal of the European Union March 5, 2011 (2011/C 73/01). Further, only Category 3 materials or equivalent as defined by Article 6 of European Parliament and Council Regulation (EC) No 1774/2002 are used as raw materials for the fatty acids. Thus, the tallow derivatives (irrespective of the geographical origin according to the Note for Guidance) used in the manufacturing of this grade are therefore considered compliant with the EMA Note for Guidance referenced above.

DOES IT MEET THE FDA FINAL RULE FOR TALLOW BASED PRODUCTS
N/A

ALLERGEN STATEMENT:
After review of the operating parameters for this grade, Braskem does not manufacture this grade from or intentionally add peanuts, soybeans, milk, eggs, fish, shellfish/crustacea, tree nuts, mustard, celery, sesame, cereals (i.e., wheat or gluten, corn, rice, rye, barley, oats, spelt or their hybridized strains and grades thereof); cottonseed, poppy, sesame seed, sunflower seed, Lupine Seed (Lupin) and grades thereof; oils, glycerin, or protein that were derived from the Jatropha plant, Mollusks and grades thereof; Carmine / cochineal, Yellow #5 (Tartrazine), Yellow #6 (Sunset Yellow); Materials of biological origin, MSG, Autolyzed Yeast, or Hydrolyzed Protein. No sulfur dioxide, sulfates or sulfites are used in the synthesis of this material.

This evaluation is based on information provided by our raw material and additive suppliers relating to the presence or absence of the potential allergen-stimulating substances listed above. Any further adulteration or processing of this grade could introduce allergens. Braskem is not responsible for any further adulteration or processing which may occur to this grade.

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GENETICALLY MODIFIED ORGANISM:
After review of the operating parameters for this grade, to the best of our knowledge there are no raw materials, including additives, that have been derived from genetically modified organisms (GMO). This is based on information provided by our additive suppliers. Therefore, although we believe this grade to be GMO free, we cannot guarantee it at this time.

UNITED STATES PHARMACOPEIA:
At this time, this grade does not meet the requirements of USP Class VI or USP 661.

DMF STATUS:
This grade is not listed in the Braskem Drug Master File.

NSF INTERNATIONAL:
At this time Braskem holds no NSF certifications for this grade.

UL:
This grade does not have UL clearance.

CONEG:
After review of the operating parameters for this grade, Braskem does not intentionally add lead, mercury, cadmium or hexavalent chromium to this grade, and this grade does not contain incidentally present aggregate levels of lead, mercury, cadmium or hexavalent chromium greater than 100 parts per million (ppm).

CALIFORNIA PROPOSITION 65:
Under the State of California Environmental Protection Agency, Office of Environmental Health Hazard Assessment Safe Drinking Water and Toxic Enforcement Act of 1986 (Prop 65), list of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity, Braskem is exempt from the warning requirements of Prop 65 under Cal/OSHA and pursuant to Section 25249.10(c) of Prop 65. Braskem does not use any substance known to the State of California to cause cancer or reproductive toxicity, and which is set forth on its Proposition 65 chemicals listing, in the manufacture of this grade. Nonetheless, all polypropylene grades, regardless of manufacture, may contain trace levels of phthalates resulting from catalyst residues in amounts generally less than 15 ppm.
Each person doing business in California is responsible for determining the status of its own products under Prop 65, and Braskem makes no representation or warranty in that regard.

CONSUMER PRODUCT SAFETY IMPROVEMENT ACT (CPSIA):
In regards to the Consumer Product Safety Improvement Act of 2008, P.L. 110-314 (the "Act"), this product does not contain lead at or above the limit of 100 parts per million specified in Section 101(a)(2)(C) of the Act. Braskem does not use lead as a raw material in the manufacture of polypropylene, and lead is not a significant component of any additives used in the manufacture of polypropylene.

This product does not contain phthalates at or above the limit of 0.1% (1000 ppm) specified in Section 108(a) and (b) of the Act.

This product, as manufactured and distributed by Braskem, is not a children's product, children's toy, child care article, or consumer product, and is therefore not subject to the Act. Each person or manufacturer doing business under the Act is responsible for determining the status of its own products under the Act and Braskem makes no representation or warranty in that regard.

Canadian Regulatory Information:

CANADIAN FOOD CONTACT (HPFB):
The composition of this grade has not been assessed for use in contact with food according to the Canadian Health grades and Food Branch (HPFB).

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CANADIAN ENVIRONMENTAL PROTECTION ACT CMP:
After review of the operating parameters for this grade, Braskem does not use any of the additives that are listed in BATCHES 1-12, CANADIAN GAZETTE, Vol. 143, No. 52, December 26, 2009, DEPARTMENT OF THE ENVIRONMENT, DEPARTMENT OOF HEALTH, CANADIAN ENVIRONMENTAL PROTECTION ACT, 1999.

CANADIAN DMF Status:
This grade is not listed on the Canadian Drug Master File.

European Regulatory Information:

EUROPEAN COMMISSION REGULATION (EU) No 1282/2011:
After review of the operating parameters, this grade complies with the requirements for use in contact with food of European Commission Regulation (EU) No 10/2011. Contact Braskem at us_compliance@braskem.com to obtain a detailed food contact compliance letter for the individual European Countries and information about the imposed migration requirement.

SUBSTANCES OF VERY HIGH CONCERN:
After the review of the operating parameters for this grade, this grade is consistent with Article 33 of REACH. This grade does not contain any substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) (i.e., included on the candidate list updated on 6/15/2012) in a concentration above 0.1% weight by weight.

94/62/EC:
With respect to the European Parliament and Council Directive 94/62 EC of 20 December 1994 on packaging and packaging waste, after review of the operating parameters for TR3350MS, Braskem does not intentionally add lead, mercury, cadmium or hexavalent chromium.

With respect to Article 11, TR3350MS would not contain incidentally present aggregate levels of lead, mercury, cadmium or hexavalent chromium greater than 100 parts per million (ppm).

EUROPEAN PHARMACOPEIA:
At this time, the European Pharmacopeia status is undetermined.

2009/251/EC:
With respect to the European Union's "Commission Directive 2009/251/EC of 17th March, 2009 on the biocide dimethylfumarate (DMF), after review of the operating parameters for this grade, Braskem does not use DMF as a raw material in the manufacture of this grade, and, to the best of Braskem's knowledge, DMF is not a significant component of any additives used in the manufacture of this grade.

76/769/EEC:
After review of the operating parameters for this grade, none of its adjuvants are listed in 76/769/EEC.

There may be a minute residual amount of phthalate in this grade left from the catalyst system at levels significantly below the limit of 0.1% for phthalates. Braskem does not utilize phthalate plasticizers in the manufacture of this grade, nor does Braskem intentionally use phthalates as a raw material in the manufacture of this grade.

The U.S. Food and Drug Administration (FDA) has cleared base polypropylene, including that used in this grade, for use in a wide variety of applications, including food packaging. When FDA approves such polymers, it is advised about the manufacturing process, including the use of any catalysts.

PHTHALATES:
Refer to statement in 76/769/eec ENDOCRINE DISRUPTORS, and CPSIA

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ENDOCRINE DISRUPTORS:
After review of the operating parameters for this product, Braskem does not intentionally add any of the following substances to this product.

• Butyl Benzyl Phthalate	• Di(2-Ethylhexyl) Phthalate
• Di-iso-decyl Phthalate	• Di-isononyl Phthalate
• Di-n-hexyl phthalate	• Di-n-octyl Phthalate
• Pesticides	• Organohalogens
• Nonyl phenol	• Penta-phenol
• Benzo(a)pyrene	• Bisphenol A
• Dipentyl phthalate	• Dipropyl phthalate
• Diethyl phthalate	

Japanese Regulatory Information:

JAPAN: NATIONAL INSTITUTE 0F HEALTH SCIENCE:
After review of the operating parameters for this grade, the adjuvants are not listed on Japan's Poisonous and Deleterious Substances Control Law; Poisonous Substance List, Deleterious Substance List, or the Specified Poisonous Substance List, per the English translation as posted on the NIHS website. Foreign purchasers or exporters of this grade should consult the appropriate local governing authority to verify there are no regulatory requirements that would prohibit or restrict the import of this grade into Japan.

Global Regulatory Information:

Global Chemical Inventory Compliance
C706-21 NA HP Polypropylene Resin and its adjuvants are listed in the following chemical inventories. Foreign purchasers or exporters of C706-21 NA HP Polypropylene Resin should consult the appropriate local governing authority to verify there are not regulatory requirements that would prohibit or restrict the import of C706-21 NA HP Polypropylene Resin into the applicable country.

Country	Inventory	Y/N/Unknown
Europe	EINECS	Yes
Europe	ELINCS	Unknown
Canada	DSL	Yes
Canada	NDSL	Unknown
United States	TSCA	Yes
Australia	AICS	Yes

Country	Inventory	Y/N/Unknown
China	IECS	Yes
Japan	ENCS	Yes
Japan	ISHL	Unknown
Japan	JHOSPA	Unknown
Korea	KECI	Yes
New Zealand	NZIoC	Yes
Philippines	PICCS	Yes

IMDS:
UNKNOWN

Other Supporting Information:

DYES, INKS, PULP, etc…
After review of the operating parameters for this grade, Braskem does not intentionally add any inks, pigments, dyes, carbon black, registered pesticides, colorants, pulp, nor pulp based material to this product.

Braskem does not intentionally add Hexachlorobenzene (HCB), or Tetrachlorophthalic Anhydride (TCPA) to this grade.

METALS:
After review of the operating parameters for this product, Braskem does not intentionally add any of the following metals during the production of this product.

• Antimony	• Gold	• Thallium
• Arsenic	• Hexavalent chromium	• Tin
• Barium	• Lead	• Vanadium

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• Beryllium	• Mercury	
• Bromine	• Molybdenum	
• Cadmium	• Nickel	
• Chromium	• Palladium	
• Cobalt	• Silver	
• Copper	• Tantalum	

CONFLICT MINERALS:
To the best of our knowledge, this product is not intentionally manufactured or formulated with the compounds and substances listed below.

- "Conflict Minerals", which include columbite-tantalite (coltan, niobium, tantalum), cassiterite (tin), gold, and wolframite (tungsten), and their derivatives.

However, we do not analyze for these specific substances or compounds.

ORGANOTINS:
After review of the operating parameters for this grade, Braskem does not intentionally add any tributyl tin, tributyl tin oxide, triphenyl tin, trialkyl tin, triaryl tin, or organotins.

OZONE DEPLETING CHEMICALS:
After reviewing the operating parameters for this grade, this grade is not manufactured with any Class I or Class II Ozone Depleting Chemicals (ODC).

BISPHENOL A & BISPHENOL F:
After review of the operating parameters for this product, Braskem does not intentionally add Bisphenol A or Bisphenol F to this product. Braskem does not use Bisphenol A or Bisphenol F as a raw material in the production of this product.

ALKYLPHENOLS & ALKYLPHENOL ETHOXYLATES:
After review of the operating parameters for this grade, Braskem does not intentionally add alkylphenol ethoxylates to this grade. Braskem does not add the simple substituted phenols, nonyl phenol, octylphenol ethoxylates, or trisnonylphenylphosphite (TNPP) to this grade. Polypropylene manufacturers, including Braskem, do add complicated phenolic materials as anti-oxidants to their polypropylene products such as this grade. Accordingly, these anti-oxidants are approved for indirect food contact and are utilized by Braskem in accordance with 21 Code of Federal Regulations (CFR) 178.2010.

LATEX-SYNTHETIC, DRY, OR NATURAL:
After review of the operating parameters for this grade, Braskem does not manufacture synthetic rubber latex, natural rubber latex (NRL) or dry natural rubber latex (DRL), nor does Braskem add synthetic rubber latex, NRL or DRL to this grade; however, we do not analyze for these specific substances or compounds.

RoHS:
After review of the operating parameters for this product, Braskem does not intentionally add any of the following:

• Cadmium	• Hexa-bromodiphenyl ether (HBDE)
• Hexavalent Chromium	• Octa-bromodiphenyl ether
• Lead	• Penta-bromodiphenyl ether (PBDE)
• Mercury	• Polybrominated biphenyl (PBB)
• Asbestos	• Polybrominated diphenyl
• Benzene, 1,1'-oxybis-, tetrabromo derivative that has the molecular formula C12H6Br4O (tetraBDE)	• Polybrominated Fire Retardants
• Brominated paraffins	• Polychlorinated biphenyls (PCB)
• Deca-bromodiphenyl ether (DBDE)	• Red Phosphorus
• Flame retardants	• Tetrabromobisphenol A

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FOR ADDITIONAL INFORMATION:

After review of the operating parameters for this grade, Braskem does not intentionally add or use any of the following compounds during the manufacture of this grade:

1,1,1-Trichloroethane	Benzo(a)pyrene	Fluoranthene	ortho-Anisidine
1,1,2,2-Tetrachloroethane	Benzo(b)fluoranthene	Fluorocarbons	Parabens
1,1,2-Trichloroethane	Benzo(ghi)perylene	Formaldehyde	Penta-bromodiphenyl ether (PBDE)
1,2-Dichloroethane	Benzo(k)fluoranthene	Fungicides	Perfluorocarbons (PFCs; gaseous)
1,4, Dioxane	Beryllium	Furans	Perfluoro-alkyl sulfonate
2-(2-Hydroxy-3,5-di-tert-butylphenyl) benzotriazole	Bis(chloromethyl)ether (BCME)	Halogenated biphenyl methane compounds	Perfluorocarbons
2,2-bis(4-hydroxyphenyl) propane bis(2,3-epoxypropyl) ether (BADGE)	Bis-phenol A	Halogenated diphenyl methanes	Pesticides
2,4-Toluene diisocyanate	Bis-phenol ether	Halogens	Pyroxylin
2,6-Toluene diisocyanate	Bisphenol-F-diglycidyl ether (BFDGE)	HCFC 141 b	Phenol (free)
2-Bromopropane	Bromide	HCFC 142 b	Phenyl-b-naphthylamine
2-Ethoxyethanol	Cellulose Acetate	HCFC 22	Poly Brominated biphenyl (PBB)
2-Ethoxyethanol acetate	Bromine	Heptachlor	Polybrominated compounds
2-Ethyl hexyl acrylate (2-EHA)	Butyl glycidyl ether (BGE)	Hexabromobiphenyls	Polybrominated diphenyl
2-Methoxy-1-propanol	Cadmium	Hexachlorobenzene	Polybrominated diphenylethers
2-Methoxyethanol	Ceramic fibers	Hexachlorobutadiene	Polybrominated Fire Retardants
2-Methoxyethanol acetate	Chlordecone	Hexamethylene-1,6-diisocyanate	Polybrominated Terphenyls
2-naphtylamine + salts	Chlordane	Hydrobromofluorocarbons (HBFCs)	Polychlorinated biphenyls (PCB)
4-aminodiphenyl	Chlorinated paraffin	Hydrochlorofluorocarbons	Polychlorinated compounds
4-nitrobiphenyl +salts	Chlorine	Hydrofluoric acid (HF)	Polychlorinated naphthalene (PCN)
4-nitrodiphenyl	Chloro-1-ethylene	Hydrofluorocarbons (HFCs)	Polychlorinated terphenyls (PCT)
4-nitrotoluene	Chlorocresol (meta-)	Indeno(1,2,3-cd)pyrene	Polycyclic aromatic hydrocarbons
4-Nonylphenol	Chlorocresol (ortho-)	Insecticides	Polycyclic musks
Acenaphthene	chloroethylene	Kathon CG	Polyvinyl chloride (PVC)
Acenaphthylene	Chlorofluorocarbons (CFCs)	Kepone	Poly-Vinylidene Dichloride
Adipates	Chloroform	Lead and lead compounds	Radioactive substances
Aldrin	Chloromethyl isothiazolinone (CIT)	Limonene	Resorcinol
Alkylphenol ethoxylates	Chromic acid	Melamine	Semicarbazide
Aminobiphenyl (4-) + salts	Chromium, hexavalent (Cr6+) compounds	Mercury + Mercury compounds	Silicon
Anthracene	Coal tar	Methyl bromide	Silicone
Aromatic Amines	Colophony (rosin)	Methyl chloroform	Strontium chromate
Arsenic compounds	Congeners	Methyl isothiazolinone (MIT)	Stylene
Artificial musks	Creosote	Methylene chloride	Styrene
Asbestos	Deca-bromodiphenyl ether (DBDE)	Methylenedianiline (4,4'-)	Sulfur dioxins
Azo compounds	Decabromodiphenyloxide	MDI (methyl-di-p-phenylene isocyanate)	Sulfur hexafluoride
Benzene	DHTDMAC	Methylglycol	Tartrazine
Benzenamine, 4-octyl-N-(4-octylphenyl)-	Di(2-ethylhexyl)phthalate (DEHP)	Mirex	2, 3, 7, 8-Tetrachlorodibenzo (para) dioxin

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Benzenamine, 4-octyl-N-phenyl-	Dialkyl tin	Monoalkyl tin	Tetrachloroethylene
Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	Dibenzo(a,h)anthracene	naphthalene	Thiocarbamide
Benzenamine, 4-(1,1,3,3-tetramethylbutyl)-N-[4-(1,1,3,3-tetramethylbutyl)phenyl]-	Dichloromethane	N-butyl benzene	Thiocyanic acid (2-benzothiazolythiomethylester) (TCMTB)
Benzenamine, 4-nonyl-N-(4-nonylphenyl)-	Dieldrin	Nickel	Thiram (TMTD)
Benzenamine, ar-octyl-N-(octylphenyl)-	Difurans	Nitro musks	Toxaphene
Benzenamine, ar-nonyl-N-phenyl-	Diisononyl phthalate (DINP)	Nitrosamines	Toluidine
Benzenamine, ar-nonyl-N-(nonylphenyl)-	Dimethyl phthalate	N-nitrosamines/N-nitrosamides	Tributyl tin
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Dimethylformamide (free)	Nonylphenolethoxylates	Tributyl tin oxide
Benzenamine, N-phenyl-, styrenated	Dioctyl phthalate	Novolac Glycidyl Ether (NOGE)	Trichloroethylene
Benzenamine, 2-ethyl-N-(2-ethylphenyl)-, (tripropenyl) derivs.	Doctyl adipate	Octabromodiphenylether	Triclosan
Benzenamine, N-phenyl-, (tripropenyl) derivs.	Endrin	Organoarsenic compounds	Triphenyl tin
Benzenamine, N-phenyl-, reaction products with isobutylene and 2,4,4-trimethylpentene	Ethylene glycol	Organohalogens	Yellow phosphorous
Benzidine (+ salts)	Dry natural rubber latex (DRL)	Octylphenol	
Benzo(a)anthracene	Dyes or pigments	Octylphenol ethoxylates	

PERFLUOROCHEMICALs (PFCs):

After review of the operating parameters for this product, Braskem does not manufacture any of the following compounds. Braskem does not intentionally add or use any of the following compounds during the manufacture of this product:

• Perfluorooctanoic acid	• Perfluorooctane sulfonate
• Perfluoro-n-butyric acid	• Perfluorooctane sulfonamide
• Pentafluoropropionic acid	• Perfluorononanoic acid
• Perfluoropentanoic acid	• Perfluorodecane sulfonate
• Perfluorohexane sulfonic acid	• Perfluorodecanoic acid
• Perfluoroheptanoic acid	• Perfluorododecanoic acid
• Perfluorooctanoic acid (PFOA)	• Perfluorooctyl sulfonate (PFOS)

POLYCYCLIC AROMATIC HYDROCARBONS:

After review of the operating parameters for this product, Braskem does not manufacture any of the following compounds. Braskem does not intentionally add or use any of the following compounds during the manufacture of this product:

• Naphthalene	• Fluorene
• Acenaphthylene	• Phenanthrene
• Acenaphthene	• Anthracene
• Fluoranthene	• Benzo(b)fluoranthene

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• Pyrene	• Benzo(k)fluoranthene
• Benzo(a)anthracene	• Indeno(1,2,3-cd) pyrene
• Chrysene	• Dibenzo(ah)anthracene
• Benzo(ghi)perylene	• Benzo(a)pyrene

For additional information or questions, contact:	Braskem Sales Person or Technical Service Representative
Email Address	us_compliance@braskem.com

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