

Adi-pure® Free Flo Adipic Acid: Information Sheet

Adi-pure® Free Flo Adipic Acid Conflict Minerals Statement:

Based on our knowledge we advise you that INVISTA does not intentionally include the chemicals identified in your inquiry (see list below) in the manufacture of Adi-pure® Free Flo Adipic Acid.

Gold
Tin
Tungsten
Tantalum
Cassiterite
Wolframite
Columbite-tantalite

Please note, however, that INVISTA does not analyze Adi-pure® Free Flo Adipic Acid for the chemicals identified in your inquiry.

Adi-pure® Free Flo Adipic Acid Inventory Status:

Adi-pure® Free Flo Adipic Acid is present on the following inventories:

Australia (AICS)
Canada (DSL)
China (IECSC)
European Union (EINECS)
Japan (ENCS)
Japan (ISHL)
Korea (KECI)
New Zealand
Philippines (PICCS)
United States (TSCA) (Active)
Taiwan (TCSI)

Adi-pure® Free Flo Adipic Acid ISO Certificate:

Adi-pure® Free Flo Adipic Acid ISO Certificate is available upon request.

Adi-pure® Free Flo Adipic Acid Restricted Substances:

Based on our knowledge we advise you that INVISTA's Adi-pure® Free Flo Adipic Acid does not intentionally contain any of the substances identified in the list below. Please note that copper is used in the production of Adi-pure® Free Flo Adipic Acid.

Please note, however, that INVISTA does not analyze Adi-pure® Free Flo Adipic Acid for the chemicals identified below on a routine basis.

Aluminum (Al) and its compounds
Antimony (Sb) and its compounds

Arsenic (As) and its compounds
Barium (Ba) and its compounds
Beryllium (Be) and its compounds
Boron (B) and its compounds
Cadmium (Cd) and its compounds
Cobalt (Co) and its compounds
Copper (Cu) and its compounds
Chromium (Cr) and its compounds
Lead (Pb) and its compounds
Manganese (Mn) and its compounds
Mercury (Hg) and its compounds
Nickel (Ni) and its compounds
Selenium (Se) and its compounds
Silver (Ag) and its compounds
Strontium (Sr) and its compounds
Thallium (Tl) and its compounds
Tin (Sn) and its compounds
Zinc (Zn) and its compounds
Polyaromatic hydrocarbons:
Naphthalene
Acenaphthylene
Acenaphthene
Fluorene
Phenanthrene
Anthracene
Fluoranthene
Pyrene
Benzo(a)anthracene
Chrysene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzo(a)pyrene
Indeno(1,2,3-cd)pyrene
Dibenzo(a,h)anthracene
Benzo(g,hi)perylene

Polychlorinated biphenyls (PCB):

1,1'-Biphenyl, 2,4',5-trichloro- (CAS nr 16606-02-3)
1,1'-Biphenyl, 2,3,3',4'-tetrabromo- (CAS nr 40088-45-7)
1,1'-Biphenyl, 2,2',4,4',5,5'-hexabromo- (CAS nr 59080-40-9)
2,2',4,4'-Tetrachlorobiphenyl (CAS nr 2437-79-8)
2,3',4,4',5,5'-HEXACHLOROBIPHENYL (CAS nr 52663-72-6)
2,4,5,2',4',5'-Hexachlorobiphenyl (CAS nr 35065-27-1)
3,3',4,4'-TETRACHLOROBIPHENYL (CAS nr 32598-13-3)
3,4,5,3',4',5'-Hexachlorobiphenyl (CAS nr 32774-16-6)
Aroclor 1016 (CAS nr 12674-11-2)
Aroclor 1221 (CAS nr 11104-28-2)
Aroclor 1232 (CAS nr 11141-16-5)
Aroclor 1242 (CAS nr 53469-21-9)
Aroclor 1248 (CAS nr 12672-29-6)
AROCLOR 1254 (CAS nr 11097-69-1)
Aroclor 1260 (CAS nr 11096-82-5)
Heptachloro-1,1'-biphenyl (CAS nr 28655-71-2)

Nonachloro-1,1'-biphenyl (CAS nr 53742-07-7)
pentachloro[1,1'-biphenyl] (CAS nr 25429-29-2)
Polychlorinated biphenyls (CAS nr 1336-36-3)
Tetrachloro(tetrachlorophenyl)benzene (CAS nr 31472-83-0)
Polychlorinated naphthalenes (PCN):
Naphthalene, chloro derivatives (CAS nr 70776-03-3)
Naphthalene, trichloro- (CAS nr 1321-65-9)
Pentachloronaphthalene (CAS nr 1321-64-8)
Polychlorinated naphthalene (CAS nr 38289-27-9)
Polychlorinated terphenyls (PCT):
Terphenyl, chlorinated (CAS nr 61788-33-8)

Short-chain chlorinated paraffins of 10 to 13 carbon atoms (SCCP) etc.
Other organochlorine compounds
Polybrominated biphenyls (PBB) etc.
Decabromodiphenyl ether (DecaBDE) including polybrominated diphenyl ethers (PBDE) etc.
Other organic bromine compounds
Bis (tributyltin) oxide (TBTO)
Trisubstituted organotin compounds: excluding TBTO
Dibutyltin (DBT) compounds
Diocetyl tin (DOT) compounds
Asbestos compounds (Actinolite,Amosite,Anthrophyllite,Chrysolite, Crocidolite,Termolite)

Carcinogenic amines formed from azo-dyes:
2,4,5-Trimethylaniline (CAS nr 137-17-7)
2-Naphthylamine (CAS nr 91-59-8)
3,3'-Dichlorbenzidine (CAS nr 91-94-1)
3,3'-Dimethoxybenzidine (CAS nr 119-90-4)
3,3'-Dimethylbenzidine (CAS nr 119-93-7)
4,4'-Methylene-bis-(2-chloroaniline) (CAS nr 101-14-4)
4,4'-Methylenedianiline (CAS nr 101-77-9)
4,4'-Methylenedi-o-toluidine (CAS nr 838-88-0)
4,4'-Oxydianiline (CAS nr 101-80-4)
4,4'-Thiodianiline (CAS nr 139-65-1)
4-Aminodiphenyl (CAS nr 92-67-1)
4-Chloraniline (CAS nr 106-47-8)
4-Chloro-o-toluidine (CAS nr 95-69-2)
4-Methoxy-m-phenylenediamine (CAS nr 615-05-4)
4-Methyl-m-phenylenediamine (CAS nr 95-80-7)
5-Nitro-o-toluidine (CAS nr 99-55-8)
Benzidine (CAS nr 92-87-5)
o-Aminoazotoluene (CAS nr 97-56-3)
o-Anisidine (CAS nr 90-04-0)
o-Toluidine (CAS nr 95-53-4)
p-Cresidine (CAS nr 120-71-8)
4-Aminoazobenzol (CAS nr 60-09-3)

Phthalates:
"Benzyl butyl phthalate (BBP)
(1,2-Benzenedicarboxylic acid, 1-butyl 2-(phenylmethyl) ester) (CAS nr 85-68-7)"
"Bis(2-methoxyethyl) phthalate
(1,2-Benzenedicarboxylic acid, 1,2-bis(2-methoxyethyl) ester) (CAS nr 117-82-8)"
"Di(2-ethylhexyl)phthalate (DEHP)

(1,2-Benzenedicarboxylic acid, 1,2-bis(2-ethylhexyl) ester) (CAS nr 117-81-7)"
 "Dibutylphthalate (DBP)
 (1,2-Benzenedicarboxylic acid, 1,2-dibutyl ester) (CAS nr 84-74-2)"
 "Diisobutylphthalate (DiBP)
 (1,2-Benzenedicarboxylic acid, 1,2-bis(2-methylpropyl) ester) (CAS nr 84-69-5)"
 "Diisopentylphthalate (DIPP)
 (1,2-Benzenedicarboxylic acid, 1,2-bis(3-methylbutyl) ester) (CAS nr 605-50-5)"
 "Heptyl undecyl phthalate
 (1,2-Benzenedicarboxylic acid di-C7-11-branched and linear alkyl-esters) (CAS nr 68515-42-4)"
 (1,2-Benzenedicarboxylic acid, diundecyl ester) (CAS nr 3648-20-2)
 1,2-Benzenedicarboxylic acid; di-C6-8-branched alkylesters, C7-rich (CAS nr 71888-89-6)
 (1,2-Benzenedicarboxylic acid, diheptyl ester, branched and linear) (CAS nr 68515-44-6)
 (1,2-Benzenedicarboxylic acid, dinonyl ester, branched and linear) (CAS nr 68515-45-7)
 (1,2-Benzenedicarboxylic acid, heptyl nonyl ester, branched and linear) (CAS nr 111381-89-6)
 (1,2-Benzenedicarboxylic acid, heptyl undecyl ester, branched and linear) (CAS nr 111381-90-9)
 (1,2-Benzenedicarboxylic acid, nonyl undecyl ester, branched and linear) (CAS nr 111381-91-0)
 "Dipentylphthalate
 (1,2-Benzenedicarboxylic acid, 1,2-dipentyl ester) (CAS nr 131-18-0)"
 Di-isononyl phthalate (CAS nr 8553-12-0)
 Di-isodecyl phthalate (CAS nr 26761-40-0)
 Di-n-octylphthalate (CAS nr 117-84-0)
 Di-isononylphthalate (CAS nr 68515-48-0)
 Diethyl phthalate
 BADGE (2,2-bis(4-hydroxyphenyl)propane bis(2,3-epoxypropyl) ether, CAS 1675-54-3)
 BFDGE (bis(hydroxyphenyl)methane bis(2,3-epoxypropyl)ethers, CAS 039817-09-9)
 NOGE (novolac glycidyl ethers)

Triphenylphosphate (CAS 115-86-6)
 Formaldehyde
 Oxalic acid
 Polyvinyl chloride (PVC) and PVC mixture
 Fluorinated greenhouse gases (PFC, HFC, SF6) etc.
 Ozone Depleting Substances: A Montreal Protocol Annex, B, C, substances according to E
 Perfluorooctane sulfonate (PFOS) and its salts, and perfluorooctane sulfonate fluoride (PFOSF)
 Perfluorooctanoic acid (PFOA)
 Specific benzotriazole (target: CASNo.3846-71-7)
 Cobalt chloride
 Dimethyl fumarate (DMF)
 Radioactive material
 Perchlorate
 Phosphoric acid tris (2 - chloroethyl)
 Methyl bromide
 Brominated flame retardants (s PBB, etc. PBDE, except HBCDD) and
 Diarsenic pentoxide
 Arsenic trioxide
 Triethyl arsenate
 Hexabromocyclododecane (HBCDD) and all major diastereoisomers
 Diisobutyl phthalate (DIBP)
 Aluminosilicates, refractory ceramic fibers
 Aluminum zirconium silicate, refractory ceramic fibers
 Boric acid
 Disodium tetraborate anhydrous
 Sodium boron oxide hydrate four seven (hydrated sodium tetraborate).

[4 - {bis (4 - dimethylaminophenyl) methylene} -2,5 - cyclohexadien-1 - ylidene] dimethylammonium chloride (CI BASIC VIOLET 3 aliases)

Pesticides

Disperse dyes and dyestuff

Methylphenol

Alkyphenols (AP=NP,OP)

Alkylphenoethoxylate(APEO=NPEO)

Short chained chloroparaffines C-10-C13

Medium chained chloroparaffines C14-C17

Carcinogenic dyes

Benzene

Phenol

Tetrachloroethane

Toluene

Xylene

Trichloroethylene

5-tert-butyl-2,4,6-trinitro-m-xylene

2,4-Dinitro toluene

Ozone depleting substances

Blue Colourants

Dioxins& furans

Sperm whale oil

Dichloro Diphenyl Trichloroethane(DDT)

Glyoxal

Titanium Dioxide

Halogenated solvents

Halogenated Dioxins or Dibenzofurans

Aromatic solvents

Epichlorohydrin

Benzidine

N-methyl pyrrolinone (NMP)

Perchlorate

1,3-Butadiene

Vinyl acetate

Ethyl acrylate

Styrene

Hexachloroethane

1,4-Dioxane

Acrylamide

Dichlorvos

Toluene-2,4-diisocyanate

4,4 Methyleneedianiline

4,4-Methylenebis(2-chloroaniline)

Di-n-butyl phthalate

Benzophenone

4,4-Bisphenol A

Isocyanates

Natural Rubber Latex (NRL)

Butylated Hydroxy Toluene (BHT)

Polybrominated Flame Retardants

Arylamines

Organochlorinated Compounds

Polycyclic Aromatic Hydrocarbons
Octamethylcyclotetrasiloxane
Dyes/colorants listed in ZDHC (Zero Discharge of Hazardous Chemicals Programme)
(http://ir.lining.com/eng/csr/csr_reports/mrs120140605.pdf)

Inditex Standards
(http://www.inditex.com/sustainability/product/health_quality_standards)

Oeko-tex
(https://www.oeko-tex.com/en/manufacturers/test_criteria/limit_values/limit_values.html)

GOTS Approved (Global Organic Textile Standard)
(<http://www.global-standard.org/certification.html>)

Adi-pure® Free Flo Adipic Acid RoHS Statement:

This note concerns compliance with European Directive 2015/863/EU as amended (RoHS Directive). This directive places restrictions on the maximum concentration of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), polybrominated diphenylethers (PBDE), Bis(2-Ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) in electrical and electronic equipment.

Link: http://ec.europa.eu/environment/waste/rohs_eee/legis_en.htm

Cadmium (Cd)
Mercury
Lead (Pb)
Hexavalent chromium (Cr6+)
Polybrominated biphenyls (PBB)
Polybrominated diphenyl ethers (PBDE)
Bis(2-Ethylhexyl) phthalate (DEHP)
Benzyl butyl phthalate (BBP)
Dibutyl phthalate (DBP)
Diisobutyl phthalate (DIBP)

We advise you that INVISTA does not include as an intentional additive or ingredient in *Adi-pure® Free Flo Adipic Acid* the chemicals identified above the levels indicated in the RoHS Directive.

Adi-pure® Free Flo Adipic Acid Shelf-life Statement:

An approximate shelf-life of *Adi-pure® Free Flo Adipic Acid* is two years, if the product is stored in the original container, in a cool and dry location and tightly closed. Based on best practice, it is recommended to rotate out the inventory on a first-in, first-out basis to minimize caking. Because storage and local conditions vary and INVISTA has no control over the practices, procedures and conditions at a customer's facility, the shelf-life estimate provided should be used as guidance only. It is not provided as a guarantee of any shelf life.

Adi-pure® Free Flo Adipic Acid Source Statement:

Be advised that INVISTA's *Adi-pure® Free Flo Adipic Acid* manufactured at our Victoria, Texas facility is manufactured from petrochemical-based feed stocks. No raw materials, reagents or support materials (buffers, catalysts, filter media) used in the manufacture of *Adi-pure® Free Flo Technical Grade Adipic Acid* are of animal or human origin.

Adi-pure® Free Flo Adipic Acid SVHC Statement:

Based on our knowledge, we advise you, that *Adi-pure®* Free Flo Adipic Acid is not listed as a SVHC substance on the EU Candidate List of Substances of Very High Concern (as updated on 16 January 2020 <http://echa.europa.eu/candidate-list-table>). INVISTA does not include as an intentional additive or ingredient any SVHC substances in the manufacture of *Adi-pure®* Free Flo Adipic Acid.

Please note however, that INVISTA does not analyze *Adi-pure®* Free Flo Adipic Acid for SVHC substances on a routine basis.

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