

# Adi-pure® High Purity Adipic Acid: Information Sheet

#### Adi-pure® High Purity 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*® High Purity Adipic Acid.

Gold

Tin

Tungsten

Tantalum

Cassiterite

Wolframite

VVOIITUITIIC

Columbite-tantalite

Please note, however, that INVISTA does not analyze Adi-*pure*<sup>®</sup> High Purity Adipic Acid for the chemicals identified in your inquiry.

#### Adi-pure® High Purity Adipic Acid Food Contact Statement:

Adi-*pure*<sup>®</sup> High Purity Adipic Acid is comprised of adipic acid (CAS# 124-04-9). In the United States, FDA's regulations for food contact applications allow the use of adipic acid as a component of food contact substances, i.e. indirect food additives (subject to the specific requirements and limitations of the corresponding Code of Federal Regulations citation) including:

- Adhesives (21 CFR 175.105),
- Resinous and polymeric coatings (21 CFR 175.300) and resinous and polymeric coatings for polyolefin films (21 CFR 175.320),
- Components of paper and paperboard in contact with aqueous and fatty foods (21 CFR 176.170) and with dry food (21 CFR 176.180),
- Cellophane (21 CFR 177.1200),
- Closures with sealing gaskets for food containers (21 CFR 177.1210),
- Resins including nylon (21 CFR 177.1500), polyurethane (21 CFR 177.1680), and cross-linked polyester resins (21 CFR 177.2420),
- Rubber articles intended for repeated use (21 CFR 177.2600).

Please note that INVISTA makes no representations regarding the FDA regulatory status of polymers produced from Adi-pure<sup>®</sup> High Purity Adipic Acid; it is the customer's responsibility to ensure that the Adi-pure<sup>®</sup> High Purity Adipic Acid based polymer is FDA compliant. The regulatory listings included above are merely intended to illustrate the ways in which Adi-pure<sup>®</sup> High Purity Adipic Acid potentially can be used to produce FDA-compliant polymers.

Be advised that adipic acid (CAS# 124-04-9) is listed under nr 12130 in EU Regulation EC/10/2011 and amendments, with no restrictions.

#### Adi-pure® High Purity Adipic Acid Inventory Status:

Adi-pure<sup>®</sup> High Purity 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® High Purity Adipic Acid Restricted Substances:

Based on our knowledge we advise you that INVISTA's Adi-pure® High Purity 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® High Purity Adipic Acid.

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

Aluminum (AI) 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 (Aq) and its compounds Strontium (Sr) and its compounds Thallium (TI) 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)

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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
Dioctyltin (DOT) compounds
Asbestos compounds ( Actinolite, Amosite, Anthrophylite, 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-phenylendiamine (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)
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# 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)" "Diisobutylphthatlate (DiBP) (1,2-Benzenedicarboxylic acid, 1,2-bis(2-methylpropyl) ester ) (CAS nr 84-69-5)" "Diisopentylphthalate (DIPP) (1,2- Benzenedicarboxylicacid, 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

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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)

Alkylphenolethoxylate(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 Methylenedianiline

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 Grain-based alcohol

Dyes/colorants listed in ZDHC (Zero Discharge of Hazardous Chemicals Programme)

(http://ir.lining.com/eng/csr/csr reports/mrsl20140605.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® High Purity 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: <a href="http://ec.europa.eu/environment/waste/rohs">http://ec.europa.eu/environment/waste/rohs</a> 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*<sup>®</sup> High Purity Adipic Acid the chemicals identified above the levels indicated in the RoHS Directive.

#### Adi-pure® High Purity Adipic Acid SVHC Statement:

Based on our knowledge, we advise you, that Adi-*pure*® High Purity Adipic Acid is not listed as a SVHC substance on the EU Candidate List of Substances of Very High Concern (as updated on 17 January 2022 <a href="http://echa.europa.eu/candidate-list-table">http://echa.europa.eu/candidate-list-table</a>). INVISTA does not include as an intentional additive or ingredient any SVHC substances in the manufacture of Adi-*pure*® High Purity Adipic Acid.

Please note however, that INVISTA does not analyze Adi-*pure*<sup>®</sup> High Purity Adipic Acid for SVHC substances on a routine basis.

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