

## AMP-ULTRA\*\* PC Multi-functional Amino Alcohols

### Global Chemical Inventory Compliance

Country	Inventory	Statement
Australia	AICS	Australian AICS: All ingredients are on the AICS Inventory or are not required to be listed.
Canada	DSL	Canadian DSL: All ingredients are on the DSL Inventory or are not required to be listed.
Canada	NDSL	-
China	IECS	Chinese IECSC: All ingredients are on the IECSC Inventory or are not required to be listed.
Europe	EINECS	European EINECS: All ingredients are on the EINECS Inventory or are not required to be listed.
Japan	ENCS	Japanese MITI: All ingredients are on the MITI Inventory or are not required to be listed.
Korea	KECI	Korean KECI: All ingredients are on the KECI Inventory or are not required to be listed.
Taiwan	TCSI	All ingredients are on the TCSI Inventory or are not required to be listed.
New Zealand	NZIoC	New Zealand NZIoC: All ingredients are on the NZIoC Inventory or are not required to be listed.
Philippines	PICCS	Philippines PICCS: All ingredients are on the PICCS Inventory or are not required to be listed.
United States	TSCA	U.S.A. TSCA: All ingredients are on the TSCA Inventory or are not required to be listed.

### AMP-ULTRA\*\* PC Multi-functional Amino Alcohols

AMP-ULTRA™ PC 1000 Neutralizing Amine [anhydrous]

AMP-ULTRA™ PC 2000 Neutralizing Amine [4.5-5.5% aqueous solution]

AMP-ULTRA™ PC 3000 Neutralizing Amine [10.5-11.5% aqueous solution]

**US FDA Food Contact Status**

FOOD ADDITIVE STATUS - CFR 21:

Please note that these products are not approved as a direct food additive, and therefore, are not marketed into such applications at this time.

AMP-90\*\* 2-Amino-2-methyl-1-propanol; AMP-95\*\* 2-Amino-2-methyl-1 propanol; AMP-75\*\* 2-Amino-2-methyl-1-propanol; AMP-ULTRA\*\* PC 1000 Neutralizing Amine; AMP-ULTRA\*\* PC 2000 Neutralizing Amine; AMP-ULTRA\*\* PC 3000 Neutralizing Amine

These AMP products meet the requirements of the Food Additive Regulations as listed below. Uses are subject to good manufacturing practices and any limitations that are a part of the regulations.

The information given here is for use as a general guideline. The regulations should be consulted for complete details. Some uses may have been overlooked; specific regulations will be reviewed upon request.

The legal judgments expressed herein are felt to be accurate. The final responsibility is, however, up to the user who should consult legal counsel.

175.105(c)(5) Adhesives.

176.170 & 176.180 Substances for Use Only as Components of Paper and Paperboard. Approved for use in all food types under conditions of use A-H & J (microwave only container) applications in:

(1) coatings at a level not to exceed 0.25% by weight of the mineral pigment

(2) fillers at a level not to exceed 0.05% by weight of the mineral pigment.

175.300(b)(3)(xiii)(a) Resinous and polymeric coatings. Melamine-formaldehyde chemically modified with one or more of the following amine catalysts:

The resins and coatings cleared under Section 175.300 have been cleared by cross reference for use as provided in the following sections:

- 175.380 Xylene-formaldehyde resins condensed with  
4,4'-isopropylidenediphenol- epichlorohydrin epoxy resins
- 175.390 Zinc-silicon dioxide matrix coatings
- 177.1210 Closures with sealing gaskets for food containers
- 177.2260(d)(3) Filter, resin-bonded. Melamine-formaldehyde chemically modified  
with one or more of the amine catalysts identified in Sec.  
175.300(b)(3)(xiii) of this chapter.

### **EU 10/2011 Food Contact**

Plastics directive (EC 10/2011) (including SML and dual use additives):

Compliance to Commission Regulation 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food: 2-Amino-2-methyl-1-propanol is not listed in the so-called Union list in this Regulation (Annex I). These products can therefore not be used in any plastic in contact with food, if used as a monomer or as an additive.

### **Animal Derived Components**

Materials of Origin, Animal Derived Ingredients, BSE/TSE:

These products have been evaluated for the source of the raw materials used in its production. They are manufactured from basic chemicals that have no animal origin. There are no animal source raw materials or additives used in the manufacture of these products. Therefore, we can state that BSE/TSE (bovine spongiform encephalopathy/transmissible spongiform encephalopathy) is not a concern with these products.

### **Food Allergens**

Allergens:

These products are not manufactured with or using any of the 26 allergen ingredients in the 7th Amendment of the European Cosmetic Directive, EU. 'Allergenic substances which must be labelled on packaging of detergents and cosmetics', as per EU Cosmetics Directive (EC) No 1223/2009 [the recast for the EU Cosmetics Directive 76/768/EEC and Amendments that are listed at [http://ec.europa.eu/consumers/sectors/cosmetics/documents/directive/index\\_en.htm](http://ec.europa.eu/consumers/sectors/cosmetics/documents/directive/index_en.htm)]. Therefore, none of these substances would be expected to be present in these products.

These products are not manufactured with or using any of the following substances: Cereals containing gluten (i.e., wheat, rye, barley, oats, spelt, kamut or their hybridized strains) and products thereof. Crustaceans and products thereof. Eggs and products thereof. Fish and products thereof. Peanuts and products thereof. Soybeans and products thereof. Milk and products thereof (including lactose). Nuts i.e., Almond (*Amygdalus communis* L.), Hazelnut (*Corylus avellana*), Walnut (*Juglans regia*), Cashew (*Anacardium occidentale*), Pecan nut (*Carya illinoensis* (Wangenh.) K. Koch), Brazil nut (*Bertholletia excelsa*), Pistachio nut (*Pistacia vera*), Macadamia nut and Queensland nut (*Macadamia ternifolia*) and products thereof. Celery and products thereof. Mustard and products thereof. Sesame seeds and products thereof. Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO<sub>2</sub>.

### **Materials from Genetically Modified Organisms**

GM O: we can inform you that the abovementioned products are not manufactured using materials from genetically modified organisms (GM O), or is handled or stored in such a way that it can become contaminated with such materials. This assessment is in agreement with EU regulations 1829/2003/EC and 1830/2003/EC and latest amendments.

### **Kosher**

Kosher:

These products have been evaluated for the source of the raw materials used in its production. They are manufactured from basic chemicals that have no animal origin. There is no animal fat, no animal derived materials, grain derived (rice or corn), or fermentation products used in these products. The products contain no marine, petrochemical or mineral additives. The products are not certified as kosher, but will comply with the kosher dietary laws. Therefore, these products can be used with kosher products without compromising the status of the products.

### **Halal**

Halal:

These products have been evaluated for the source of the raw materials used in its production. They are manufactured from basic chemicals that have no animal or vegetal origin. There is no animal fat, no animal derived materials, grain derived (rice or corn), or fermentation products used in this product. The products contain no marine, petrochemical or mineral additives. The products are not certified as Halal but will comply with the Halal dietary laws. Therefore, these products can be used with Halal products without compromising the status of the products.

### **Vegan**

Vegan:

These products are a synthetic chemical manufactured from basic raw material chemicals that have no animal or plant origin. There are no genetically modified organisms (GMO) used in the manufacture of these products. There are no animal source raw materials or additives used in the manufacture of these products. The manufacture of these products do not exploit the use of animals in any way.

### **REACH**

REACH:

I can confirm that the component(s) in these products were registered under REACH in 2010.

Registration number: 01-2119475788-16-0000

As you probably know, REACH obligations to (pre)register are with the manufacturers in the EU and/or importers of substances in the EU. Therefore, the fact that ANGUS will (pre)register substances which ANGUS manufactures and/or imports into the EU, may not satisfy the REACH obligation for other importers of the same ANGUS substance(s).

**EU Directive 2002/95/EC (RoHS) as amended by 2008/385/EC**

EU RoHS Directive 2002/95/EC as amended by EU Directive 2011/65/EU - Restriction of Hazardous Substances (RoHS); 1-Jul-2011:

For information on the components of our products and their concentrations, please refer to the Material Safety Data Sheet (MSDS) and the Sales Specification. Any hazardous constituent above 1% (by weight) and carcinogens above 0.1% will appear in the Ingredients section of the MSDS for these products. In addition, consult the Hazardous Decomposition Products section of the MSDS and the Sales Specification for further information.

ANGUS does not routinely analyze for additional materials that are not listed in the MSDS or Sales Specification. Your inquiry addressed the EU Directive 2002/95/EC, on the restriction on the use of certain hazardous substances in electric and electronic equipment (RoHS), which contains restrictions on the following materials in electric and electronic equipment: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE). None of those materials are intentionally added to these products.

**EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE)**

EU Directive 2002/96/EC, as amended by Directive 2008/34/EC, requires that the formation of waste from electric and electronic equipment is reduced and properly managed.

This statement is intended to provide information on our product so that you may assess the consequences of these directives on the E&E articles you manufacture and place on the EU market, or materials you supply to the affected industry.

EU Directive 2002/96/EC on WEEE: Selective treatment of the waste (Article 6.1 and Annex II)

Article 6 requires that the waste management schemes (to be) set up by the producers, individually or collectively, ensure that the waste will be selectively treated for materials and components of the E&E waste in line with the requirements of Annex II.

None of the following substances listed in Annex II are intentionally added or used in the manufacture of these products:

- Asbestos
- Brominated flame retardants
- Ceramic fibers
- Chlorofluorocarbons (CFC)
- Hydrochlorofluorocarbons (HCFC)
- Hydrofluorocarbons (HFC) , Hydrocarbons (HC)
- Mercury
- Ozone depleting gases
- Polychlorinated biphenyls (PCB)
- Polychlorinated terphenyls (PCT)
- Radioactive substances

### **ASTM F963 - Standard Consumer Safety for Toy Safety**

Compliance to Norm DIN EN 71 Part 3 Heavy metals in toys: this standard relates to Safety of Toys - Migration of Certain Elements (Antimony, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury and Selenium), and is based upon Directive 88/378/EEC (with amendments) establishing maximum daily leachable metals from toys.

We do not routinely analyze for chemicals which are not on our sales specifications; however, we have performed occasional analysis on several samples of these products to determine if we had heavy metals in them and have found in our analysis that the heavy metals levels were below the level of detection of 0.01 ppm (mg/kg) for Lead, Arsenic, Selenium, Barium, Chromium, Cadmium, Antimony and 0.002 ppm (mg/kg) for Mercury.

### **Canadian Environmental Protection Act Challenge Substances**

CEPA Challenge; Challenge substances on DSL subject to screening assessment, as amended through January 15, 2011:

You asked if this product contains any substances that have been identified by the Canadian Environmental Protection Agency (CEPA) in the challenge program "Notice of intent to develop and implement measures to assess and manage the risks posed by certain substances to the health of Canadians and their environment". The Chemicals Management Plan in this Canadian program involves the collection of information on the properties and uses of the approximately 200 chemical substances identified through the categorization process as high priorities for action.

These products have been evaluated for the source of the raw materials used in their production. These products are manufactured from basic chemicals and has no additional additives, preservatives, or dyes. Although these products are not analyzed routinely for the substances in question, they are not manufactured or formulated with and, therefore, not expected to contain any of the substances of concern that are listed on batches 1-12 of the CEPA Challenge, with the following possible exception: 2-Nitropropane is an early stage material used to manufacture these products, however, none of this chemical are anticipated to be present in the final products.

### **Natural Rubber, Latex, Parabens, Gluten, Palm Oil, and Mineral Oil**

Substances of Concern; Natural Rubber, Latex, Parabens, Gluten, Palm Oil, and Mineral Oil:

This products have been evaluated for the source of the raw materials used in their production. They are a synthetic chemical manufactured from basic raw material chemicals that have no animal or plant origin. There are no additives, colorants or preservatives added to these products. Although we do not test for the chemical you question routinely, these products are not produced with or manufactured using these materials, and therefore, would not be expected to contain any of these substance(s):

- Natural rubber
- Latex
- Parabens
- Gluten
- Palm Oil
- Mineral Oil
- Melamine
- Aflatoxin
- Pesticides

### **Phthalate Esters**

Substances of Concern; Phthalates:

These products are not intentionally manufactured or formulated with the following phthalate esters; however, we do not analyze for these specific substances or compounds.

- Butyl benzyl phthalate (BBP) CAS 000085-68-7
- Diethyl hexyl phthalate (DEHP) CAS 117-81-7
- Diethyl phthalate CAS 000084-66-2
- Diisobutyl phthalate (DIBP) CAS 000084-69-5
- Di-iso-decyl phthalate (DIDP) CAS 26271-40-0
- Di-isononyl phthalate (DINP) CAS 28553-12-0
- Dimethyl phthalate CAS 131-11-3
- Di-n-butyl phthalate (DBP) CAS 000084-74-2
- Di-n-hexyl phthalate (DnHP) CAS 000084-75-3
- Di-n-octyl phthalate (DNOP) CAS 117-84-0.

### **Halogenated Flame Retardants**

Substances of Concern; Halogenated Compounds:

These products have been evaluated for the source of the raw materials used in its production. They are a synthetic chemical manufactured from basic raw material chemicals that have no animal or plant origin. There are no additives, colorants or preservatives added to these products. Although we do not test for the chemical(s) you question routinely, these products are not produced with or manufactured using halogenated compounds, and therefore, would not be expected to contain any of these substance(s):

1.1.1-Trichloroethane (CAS 71-55-6)

1.1.2-Trichloroethane (CAS 79-00-5)

1.1.1.2- Tetrachloroethane (CAS 630-20-61)

1.1.2.2- Tetrachloroethane (CAS 79-34-51)

1.1-Dichloroethylene

Trichloroethylene (CAS 79-01-6)

Tetrachloroethylene (CAS 127-18-4)

Bromochloromethane (CAS 74-95-5)

Carbon Tetrachloride (CAS 56-23-5)

Chlorobenzene

Chlorofluorocarbons (CFCs)

Chloroethylene  
Chloroform (CAS 67-66-3)  
Chlorotoluenes  
Dichlorobenzenes  
Dichlorotoluenes  
Dioxins or furans  
Halon or Halogenalkanes  
Hydrobromofluorocarbons (HBFCs)  
Hydrochlorofluorocarbons (HCFCs)  
Hydrofluorocarbons (HFCs)  
Pentachlorobenzenes  
Hexachlorobenzenes  
Pentachloroethane  
Pentachlorotoluenes  
Perfluorinated Chemicals (PFCs)  
Polychlorinated Biphenyls(PCBs)  
Polychlorinated Terphenyls(PCTs)  
Polychlorinated Naphthalenes(PCNs)  
Polyvinyl chloride (PVC)  
Polyvinylidene chloride (PVDC)  
Tetrachlorobenzenes  
Tetrachlorotoluenes  
Trichlorobenzenes  
Trichlorotoluenes

**Fluorotelomers, Perfluorooctanoic acid (PFOA) and Derivatives**

Substances of concern; PFOS/PFOA:

These products have been evaluated for the source of the raw materials used in its production. These products are manufactured from basic chemicals and this product has no additional additives, preservatives or dyes. Although these products are not analyzed routinely for the substances in question, they are not manufactured or formulated with and, therefore, not expected to contain: Perfluorooctanoic Acid (PFOA) or Perfluorooctane Sulfonate (PFOS).



### **Residual Volatile Organic Compounds (VOC)**

Volatile Organic Compounds (VOC) – USA-EPA:

With regard to Volatile Organic Compounds (VOC) content, one Environmental Protection Agency (EPA) definition of a VOC is any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate and excluding compounds which have negligible photochemical reactivity such as: ethane, methane, and also methylene chloride, perchloroethylene and acetone.

For other compounds, see 40 Code of Federal Regulations Section 51.100(s) and check for any recent Federal Register notices possibly exempting other negligibly reactive VOCs. Under this broad definition, this product is a VOC.

The water portion of this product, if present, is not considered a VOC. Since state or local governments and some specific EPA regulations may be more restrictive than the definition above, please check these sources also.

NOTE: Please note that this information is not a statement as to whether or not any of these products is a VOC. It is the responsibility of the user to determine the appropriate regulatory requirement for their operation.

### **California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

California Proposition 65 (also known as the California Safe Drinking Water and Toxic Enforcement Act of 1986):

These products contain no listed substances known to the State of California to cause cancer, birth defects, or other reproductive harm, at levels which require a warning under the statute.

Based on the knowledge of starting materials and product chemistry, N-Nitrosohexamethyleneimine (CAS# 932-83-2) is NOT an impurity in any of our products.

### **BfR Bundesinstitut für Risikobewertung Recommendation**

BfR XIV, XXXVI et XXXVI/2; Food contact approval in Germany:

2-Amino-2-methyl-1-propanol has received BgVV approval from the German Federal Institute for Risk Assessment under recommendation XXXVI "production aid as dispersant and flotation agent in the manufacture of paper and board for food contact use". It is not in recommendation XIV (plastics dispersions) nor is it in recommendation XXXVI/2 (Paper and Paperboard for Baking Purposes).

### **Food Contact COE Council of European Resolution**

Framework Resolution ResAP(2004)1 :

Resolution AP(2004)1 on coatings intended to come into contact with foodstuffs (replacing Resolution AP (96) 5): we can inform you that our substance 2-Amino-2-methyl-1-propanol is listed in the Synoptic document AP 20024/1 only in SCF list 8 "Substances for which no or only scanty and inadequate data was available"

### **Food Contact Switzerland LGV**

SR 817.023.21 Annex 10 Part A or B + restrictions if any:

I can confirm that 2-Amino-2-methyl-1-propanol is listed in annex 10 on the Swiss Ordinance 817.023.21 on Materials and Articles in contact with food. It is in the list of binders, in the list of solvents and in the list of additives, part A, evaluated substances with an SML of 5 mg/kg in these three lists.

### **Coalition of Northeastern Governors (CONEG)**

CONEG:

Regarding the Coalition of Northeastern Governors (CONEG) legislation, although we do not analyze for the substances in question routinely, occasional samples of a similar 2-amino-2-methyl-1-propanol product containing approximately 5% water have been tested for some of the ingredients that you are requesting with the following results:

Cadmium: None detected at 0.05 ppm limit of detection.

Chromium: None detected at 0.05 ppm limit of detection.

Chromium VI: None detected at 0.05 ppm limit of detection.

Lead: None detected at 0.05 ppm limit of detection.

Mercury (Hg): None detected at 0.05 limit of detection.

### **Hazardous Air Pollutants (HAPs)**

HAPS:

With regard to your inquiry on Hazardous Air Pollutants (HAPs) under the Clean Air Act, this product is a blend as described in the Material Safety Data Sheet (MSDS). In addition, please also consult the Hazardous Decomposition Products section of the MSDS and the Sales Specification for any further information. I am not aware of these products containing any HAPs above 0.1%. The following Environmental Protection Agency (EPA) websites are also available for your reference of the most current HAPs listings, including recent modifications to the listings:

<http://www.epa.gov/ttn/atw/orig189.html>. Federal Register notices containing modifications to the original Clean Air Act HAP list are located here: <http://www.epa.gov/ttn/atw/pollutants/atwsmod.html>.

## **REACH SVHC**

EU REACH SVHC; [Candidate List of Substances of Very High Concern (SVHC) for authorization]; 25-Jun-2020:

These products are manufactured from basic chemicals and has no additional additives, preservatives or dyes. Although we do not analyze this product routinely for the substances in the EU REACH "SVHC" Proposed List of Chemicals; ANGUS does not manufacture with or produce these products using any of the substances on the referenced list, and therefore, would not expect any to be present.

## **Shelf Life**

Shelf Life:

These ULTRA PC products should meet original specification for a period of three (3) years from the date of manufacture, provided the product, in original packaging, has not been used or modified in any manner, and has been kept under recommended storage conditions.

Historical performance data available for the products have yielded no increase in levels of impurities, no changes in purity, and no other indications of product degradation.

If additional information is needed, please contact Customer Service or local sales.

We appreciate your inquiry on this issue and value your continuing interest in ANGUS products. If you have further questions regarding ANGUS products, please do not hesitate to contact us.

## **Microbial Contamination**

Microbial Contamination:

In response to questions on potential microbiological contamination, the plant process has been enclosed to minimize the risk of contamination; however, we make no claims regarding the suitability of these products to be used in a sterile application. We do not routinely test these products for microbial contamination, nor do we treat the product to reduce microbial contamination.

## **Formaldehyde and Nickel Content**

Formaldehyde and Nickel Content:

AMP products have been evaluated for the source of the raw materials used in production. These products are manufactured from basic chemicals and have no additional additives, preservatives or dyes. Although we at ANGUS do not analyze for trace substances in question routinely, these products are manufactured using the following materials:

Nickel and Nickel Compounds: These products are made from an ingredient which uses a very small amount of nickel in the manufacture of that ingredient. Although, we do not analyze for nickel routinely, occasional samples of AMP products have been tested for nickel and the results of those tests have shown less than 10 ppm of nickel.

Formaldehyde: We do not measure free formaldehyde routinely in our products. The free formaldehyde concentration, when the products are sold, is essentially nil because the 2-amino-2-methyl-1-propanol would react with any free formaldehyde present and form a stable oxazolidine compound. Certain processes or conditions resulting in an acidic pH will decompose any trace oxazolidine present and consequently, liberate formaldehyde. In fact, most analytical procedures for measuring formaldehyde give false positives due to this situation. Bound formaldehyde is mistakenly reported as free formaldehyde because of the oxazolidine decomposition reaction under acidic conditions.

## **EU Cosmetics**

EU Cosmetics Directive (EC) No 1223/2009; the recast for the EU Cosmetics Directive 76/768/EEC and Amendments:

The AMP-ULTRA PC grade products are compliant with the Regulation (EC) No 1223/2009, the recast for the EU Cosmetics Directive 76/768/EEC and Amendments. The section of the Directive relevant to ANGUS aminoalcohols states, among other requirements, that our products as raw materials in cosmetics should have a minimum purity of 99%, contain no greater than 0.5% secondary amines, and have no greater than 50 ppb nitrosamines.

Nitrite-Free:

We have confirmed with our packaging supplier that the containers used for this product are considered to be "nitrate-free" and "nitrite-free".

## **Substances of Concern**

Presence of substances of concern: these products are made from basic chemicals containing no additives, dyes or preservatives. Although we do not analyze these products for the specific chemicals you list routinely, they are not manufactured with or formulated using and, therefore, is not expected to contain:

- any chlorinated compound
- any phthalate ester
- any fluorotelomer, perfluorooctanoic acid (PFOA), or perfluorooctane sulfonate (PFOS)

## **Materials of Origin, Plant Derived Ingredients**

Materials of Origin, Plant Derived Ingredients:

These products has been evaluated for the source of the raw materials used in its production. It is manufactured from basic chemicals that have no plant origin. There are no plant source raw materials or additives used in the manufacture of these products.

## **Animal Testing**

Animal Testing:

ANGUS Chemical Company has not sponsored or conducted any animal toxicity studies on AMP-ULTRA PC Product after February, 2006. Other industrial grades/ formulations of 2-Amino-2-methyl-1-propanol( having different impurity profiles and % of AMP, CAS # 124-68-5) listed in the below table have been tested in animals since that time to fulfill a commitment to the European Chemicals Agency (ECHA) under the REACH Registration framework as recent as 2019. Such testing does not contravene the testing or marketing bans in the EU since the substance was not tested "in order to meet the requirements of this (the EU Cosmetics) Directive" (Article 1, Directive 2003/15/EC). The term animal is used here as defined by EU Directive 2010/63/EU for the Protection of Laboratory Animals, Article 1.3.

**AMP-ULTRA \*\* PC Multi-functional Amino Alcohols**

<b>Product name</b>	<b>% AMP (CAS # 124-68-5) in product/ formulation</b>	<b>Year of Last Animal testing</b>	<b>Purpose of Testing</b>
AMP-95® 2-Amino-2-methyl-1-propanol	> 89 %	2019	REACH Registration
AMP-HCl, 2-Amino-2-methyl-1-propanol hydrochloride	100 % (hydrochloride salt of AMP; CAS# 3207-12-3)	2019	REACH Registration
AMP-ULTRA® PC 2000	>= 93.5 - <= 95.5 %	2006	REACH Registration

### **Residual Solvents**

Residual Solvents According to ICH (International Conference Harmonization):

Based on the manufacturing process for these products they are not expected to contain detectable residual solvents as listed in ICH Q3C/ USP 467.

### **European Volatile Organic Compound**

Volatile Organic Compound (VOC) content: 2-Amino-2-methyl-1-propanol (AMP) has a boiling point of 165 °C, therefore the AMP portion of this product is a VOC according to EU criteria. Water, if present, is not considered a VOC.

### **CMR**

CMR (Carcinogens, Mutagens, Reproductive Toxins):

These products contain no known substances, which are classified in Annex 1 Directive 67/548/EEC on Dangerous Substances and its latest amendments, or in the European GHS Classification CLP 1272/2008 of 16-Dec-2008 as carcinogenic, mutagenic or toxic for reproduction (C, M, R).

There are no components in these products which are classified as carcinogenic under IARC-1, IARC-2A or IARC-2B; classified by National Toxicology Program (NTP) as 'known' or 'anticipated' carcinogens; classified by EPA IRIS as Group A, B1, B2 or C; or classified as carcinogens under the USA Occupational Health and Safety Administration (OSHA). Components classified as carcinogens under these definitions would be listed as such on the relevant Material Safety Data Sheet (MSDS) for this product.

There are no components in these products which are classified as mutagenic under the Globally Harmonized System (GHS) for the classification of chemicals as Category 1, i.e. "Chemicals known to induce heritable mutations in germ cells of humans" or "Chemicals which should be regarded as if they induce heritable mutations in germ cells of humans".

### **European REACH Annex XVII and Amendments**

EU REACH Annex XVII and Amendments; [Substances subject to marketing and use restrictions, excluding CLP Annex VI Table 3.2 CMR-Cat.1,2]; EC No 494/2011; 15-Apr-2011:

These products have been evaluated for the source of the raw materials used in its production. These products are manufactured from basic chemicals and has no additional additives, preservatives or dyes. Although these products are not analyzed routinely for the substances in question, it is not manufactured or formulated with and, therefore, not expected to contain any of the Carcinogens, Mutagens, Reproductive Toxins, Azocolourants, Tin Compounds/PFOS or PFOA, or other compounds which are on this list of chemicals.

**Harmonized Tariff Code**

Harmonized Tariff Code USA: 2922.19.9690

The HTC for this product is: 2922.19

**Export Control Classification Number**

Export Control Classification Number (ECCN):

The ECCN for this product is: EAR99

**United States Ozone Depleting Substances**

Ozone Depleting Substances:

These products are not "manufactured with" and does not "contain" any Class I or Class II substances as defined in Title VI of the Clean Air Act of 1990, as per the final rule published in the Federal Register on February 11, 1993 (58 FR 8136).

**Heavy Metals**

Metals:

Although we at ANGUS do not analyze for the substances in question routinely, occasional samples of a similar 2-amino-2-methyl-1-propanol product containing approximately 5% water have been tested for some metals with the following results:

Arsenic (As): None detected at 0.02 ppm limit of detection.

Cadmium (Cd): None detected at 0.01 ppm limit of detection.

Chromium (Cr): None detected at 0.01 ppm limit of detection.

Chromium VI (Cr +6): None detected at 0.01 ppm limit of detection.

Lead (Pb): None detected at 0.05 ppm limit of detection.

Mercury (Hg): None detected at 0.05 ppm limit of detection.

### **Conflict Minerals**

Conflict Minerals; Dodd-Frank Wall Street Reform and Consumer Protection Act:

This question is regarding the Dodd-Frank Wall Street Reform and Consumer Protection Act, which imposes requirements regarding “conflict” minerals from the Democratic Republic of Congo or surrounding countries, in products or in the manufacturing process; these are columbite-tantalite (coltan), cassiterite, wolframite (from which tantalum, tin, tungsten are commonly derived) and gold, or their derivatives.

These products have been evaluated for the source of the raw materials used in its production. They are a synthetic chemical manufactured from basic raw material chemicals that have no animal or plant origin. There are no additives, colorants or preservatives added to this product. Although we do not test for the chemicals you question routinely, these products are not produced with or manufactured using any of these compounds, and therefore, would not be expected to contain any of these substances listed in your inquiry: columbite-tantalite (coltan), cassiterite, wolframite (from which tantalum, tin, tungsten are commonly derived), or gold from any countries.

### **Nanomaterials**

These products are made from basic chemicals containing no additives, dyes or preservatives. Although we do not analyze our products for the specific chemicals you list routinely, they are not manufactured with or formulated using and, therefore, are not expected to contain any nanomaterials as defined in Regulation EC 1223/2009 and amendments.



## AMP-ULTRA \*\* PC Multi-functional Amino Alcohols

### Product Stewardship

The ANGUS Chemical Company has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take the appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with ANGUS products—from the initial concept and research, to manufacture, use, sale, disposal and recycle of each product.

### Customer Notice

ANGUS strongly encourages its customers to review both their manufacturing processes and their applications of ANGUS products from the standpoint of human health and environmental quality to ensure that ANGUS products are not used in ways for which they are not intended or tested. ANGUS personnel are available to answer your questions and to provide reasonable technical support. ANGUS product literature, including safety data sheets, should be consulted prior to use of ANGUS products. Current safety data sheets are available from ANGUS.

### Disclaimer

NOTICE: No freedom from infringement of any patent owned by ANGUS or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, the Customer is responsible for determining whether products and the information in this document are appropriate for the Customer's use and for ensuring that the Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. ANGUS assumes no obligation or liability for the information in this document. **NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.**

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