Information Toxicology International Inc.

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Date: August 30, 2012 InfoTox No. Z 082012LUT-1

# **TOXICOLOGICAL RISK ASSESSMENT (TRA) & LHAMA REVIEW (ASTM D-4236)**

Client: **ECOS Paints** 

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Diplomate American Board of Toxicology (DABT)

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**EUROTOX** Registered Toxicologist (ERT)

Certified Safety Assessor of Cosmetics, EU Directive CSAC) Present/past Memberships; ASTM, CTFA, ICMAD, NAMTA,

CHA. NSSEA.

Director: Dr. Dildar Ahmad, M.D., ERT.

Product: Water-borne acrylic paint.

Each of the containers contains 1 Quart or 1 Gallon. Net Weight:

**Intended Use:** Decorative and artistic paint.

#### Introduction

The formulation of the "Water-borne acrylic paint" (Paint), referenced above was submitted to Info.Tox. International, Inc. (InfoTox) on August 20, 2012 for the Toxicological review. The review was conducted in accordance with the US Consumer Product Safety Commission's (CPSC) regulation in 16 CFR 1500.3 for the "Acute Toxicity", and CFR 1500.14(b) 8 (Labeling of the Hazardous Art

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Materials Act (LHAMA)}, for **Chronic Toxicity**, by applying the criteria outlined in ASTM D-4236.

This Toxicological Risk Assessment (TRA) is based on the general principal of toxicology which takes into account, the available toxicological literature (including the literature from the National Toxicology Program, International Agencies for Research on Cancer), expected exposure to users, the toxicity characteristics of the individual ingredients, expected combined effects of ingredients, the total amount of the "Paint" per consumer package, the composition of the "Paint" and the intended and foreseeable conditions of use. The final conclusion was made on the basis of the Consumer Product Safety Regulations mentioned above (Paragraph 1), by using professional judgment.

While conducting this assessment, InfoTox utilized its best professional capabilities and resources available to it at the time of this assessment. Therefore, if the client wishes to use this opinion, InfoTox, any of its employees and/or owners including the Toxicologists, will not be held liable for any injury and/or damage resulting from the use of this product, due to misinformation.

This TRA is recommended to be updated **every five years** or upon any change in the formulation or upon knowledge of any additional toxicological information. Moreover, in the event of any additional guidance and/or recommendation from the CPSC, the client shall have to comply with that guidance in all respects.

#### **Exposures Assessment**

While assessing possible exposures to chemicals of concern, routes usually considered include, inhalation, eye contact, dermal contact, and ingestion. Considering physico-chemical characteristics of the "Paint" and the intended and foreseeable conditions of use, consumers are anticipated to be exposed through eye contact (splash and/or hand-to-eye activity), skin contact and ingestion (hand-to-mouth-activity). Whereas being water based, exposure through inhalation is expected to be below the level of significance, unless it is sprayed, which is not recommended in this case.

#### Regulatory background

None of the ingredients used in the "Paint" are found to be banned by the CPSC for use in paints at the concentration used in this paint.

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# **Toxicological Assessment**

## **Oral Toxicity**

The LD50s (oral, rat) of the "Paint" is estimated to be > 5000 mg/kg body weight. As such, the "Paint" can be considered as "Practically Non-Toxic" through ingestion (Hodge and Sterner Scale).

#### Skin Irritation

Based on the physico-chemical and toxicological characteristics, the "Paint" can be expected to be non-skin irritants.

#### Eye Irritation

Based on the physico-chemical and toxicological characteristics of the paint and its ingredients, direct contact with eyes can cause irritation. However, such an irritation is expected to be mainly of mechanical nature.

#### Respiratory Effects

Based on the physico-chemical and toxicological characteristics of the paint and its ingredients, inhalation exposure is not expected unless the paint is sprayed and fine mist is generated, without a proper exhaust system.

#### Corrosion

None of the ingredients used at the concentration is expected to cause corrosion to the soft tissues.

## Sensitization

Biocides used in the formulation are sensitizer in nature. Therefore, exposure to the paint may cause allergic reaction among certain sensitized individuals.

## Summary of the Toxicological and LHAMA (ASTM D-4236) Review;

When used as intended, the "Paint" may cause the following adverse health effects among the general consumer population.

Oral Toxicity (16 CFR 1500.3(c)(2) (i)(A): Not Expected

Eye Irritation (16 CFR 1500.3(c)(4) Expected (mainly mechanical)

Skin Irritation (16 CFR 1500.3(c)(4)
Respiratory tract Irritation (16 CFR 1500.3(c)(4)
Sensitization (16 CFR-1500.3(c)(5)
Corrosion per 16 CFR 1500.3 (b)(7)
Chronic Toxicity 16 CFR 1500.14(b) 8
Not Expected
Not Expected
Not Expected

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Water-borne acrylic paint.

# Conclusion of the TRA & LHAMA (ASTM D-4236)

Based on the Toxicological Review, it is determined that the "Water-borne acrylic paint" referenced above does not contain any ingredient at a level which is banned by the United States CPSC for use in paints. Moreover, no toxicological effect of any significance is anticipated among the general consumer population when the product is used as intended. However, direct and/or repeated contact of the paint with skin may cause allergic reaction among certain sensitive individuals.

Do not use sprayer and generate airborne mist. Avoid contact with eyes and skin. Wash hands after use. If allergic reaction develops discontinue use and consult a physician. In case of eye contact, wash eyes with clean water. For children adult supervision is required.

This product can be labeled as "CONFORMS TO ASTM D-4236."

The client is authorized to use the following seal on the product label.



#### End of the Report

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