

## Material Safety Data Sheet

### ANNATTO EXTRACT

#### Section 1 - Product Identification

Synonyms : Alpha Norbixin,  
Company Identification : Tradeasia International Pte. Limited  
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Recommended use of the chemical and restrictions on use

The product is used in industrial manufacturing, in particular in :

- Food and Beverage
- Medicine Application

#### Section 2 – Composition/Information on Ingredients

The product contains greater than 92.0 percent (%) Annatto Extract

Chemical Name	EC No/CAS No	Purity, %
Annatto Extract	1393-63-1	min. 92.0

#### Section 3 – Hazards Identification

##### 3.1 Classification of the substance according to GHS

Not a hazardous substance according to GHS.

##### Cautionary Statement

Read label before use

Keep out of reach of children

##### 3.3. Other hazards which do not result in classification

Annatto extract is an orange-red powdered substance that is not flammable, combustible, or explosive, and has low acute oral and dermal toxicity.

##### Potential health effects

Inhalation and ingestion are the most significant route of exposure in occupational and other settings.

## **Inhalation**

Occasional mild irritation effects to nose and throat may occur from inhalation of annatto extract dust.

## **Eye contact**

Annatto extract can be an eye irritant.

## **Skin contact**

Annatto extract does not cause irritation to intact skin.

## **Ingestion**

Products containing annatto extract are suitable for ingestion. Annatto extract has low acute toxicity.

## **Potential ecological effects**

Annatto extract has minimal effect on the ecology.

## **Signs and symptoms of exposure**

There is no signs and symptoms associated with overdose of annatto extract.

## **Section 4 – First-Aid Measures**

### **4.1. Description of first aid measures**

#### **Skin contact**

No treatment necessary because non-irritating.

#### **Eye contact**

Use eye wash fountain or fresh water to cleanse eye. If irritation persists for more than 30 minutes, seek medical attention.

#### **Inhalation**

If symptoms such as nose or throat irritation are observed, remove to fresh air.

#### **Ingestion**

If large amounts are ingested or injected in a short time, contact a doctor immediately.

#### **Note to physicians**

N.A.

### **4.2. Most important symptoms and effects, both acute and delayed**

N.A.

### **4.3. Indication of any immediate medical attention and special treatment needed**

N.A.

## **Section 5 – Fire Fighting Measures**

### **5.1. Suitable Extinguishing media**

Any fire extinguishing media may be used on nearby fires.

### **5.2. Specific hazards arising from the chemical**

Annatto extract is not flammable, combustible or explosive.

### 5.3. Special protective actions for fire-fighters

N.A.

## Section 6 – Accidental Release Measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. In case of exposure to prolonged or high level of airborne dust, wear a personal respirator in compliance with national legislation.

### 6.2. Environmental precautions

Annatto extract is a water-soluble orange-red powder that is naturally occurring and stable in the environment.

### 6.3. Methods and material for containment and cleaning up

#### Land spill

Vacuum, shovel or sweep up annatto extract and place in containers for disposal in accordance with applicable local regulations. Avoid contamination of water bodies during clean up and disposal. No personal protective equipment is needed to clean up land spills.

#### Spillage into water

Where possible, remove any intact containers from the water. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns to its normal environmental background level.

## Section 7 – Handling and Storage

### 7.1. Precautions for safe Handling

To maintain package integrity and to minimise caking of the product, bags should be handled on a first-in first out basis. Good housekeeping and dust prevention procedures should be followed to minimise dust generation and accumulation. Your supplier can advise you on safe handling, please contact the supplier. The product should be kept away from strong reducing agents. Apply above handling advice when mixing with other substances.

### 7.2. Conditions for safe storage, including any incompatibilities

No special handling precautions are required, but dry, indoor storage is recommended. No specific requirements. Provide appropriate ventilation and store bags such as to prevent any accidental damage.

## Section 8 – Exposure Controls/Personal Protection

### 8.1. Control parameters

Occupational exposure limits for dust (total and respirable). are treated by OSHA, Cal OSHA and ACGIH as

“Particulate Not Otherwise Classified” or “Nuisance Dust”

ACGIH/TLV 10 mg/m<sup>3</sup>

Cal OSHA/PEL 10 mg/m<sup>3</sup>

OSHA/PEL (total dust) 15 mg/m<sup>3</sup>

OSHA/PEL (respirable dust) 5 mg/m<sup>3</sup>

## **8.2. Appropriate engineering controls**

Maintain air concentrations below occupational exposure standards.

Use local exhaust ventilation to keep airborne concentrations of dextrose monohydrate dust below permissible

exposure levels. Wash hands before breaks and at the end of the workday. Remove and wash soiled clothing.

## **8.3. Individual protection measures, such as personal protective equipment (PPE)**

### **Respiratory protection**

In case of prolonged exposure to dust wear a personal respirator in compliance with national legislation (make

reference to the appropriate CEN standard)

### **Eyes and hands protection**

Goggles and gloves are not required for normal industrial exposures, but may be warranted if environment is

excessively dusty.

## **Section 9 – Physical and Chemical Properties**

### **9.1. Information on basic physical and chemical properties**

Appearance : Orange-red solid powder

Odour : Nutty and peppery odour

Odour threshold : N.A.

pH @ 20° C : 5.0

Melting point : N.A

Boiling point : N.A

Flash point : Non flammable

Evaporation rate : N.A.

Flammability : N.A.

Upper/lower flammability or explosive limits : Non explosive

Vapour pressure : Negligible @ 20° C

Vapour density : N.A.

Bulk density: 0.35-0.75 g/mL

Solubility in water : Water and fat soluble

Partition coefficient: n-octanol/water : N.A

Auto-ignition temperature : N.A.

Decomposition temperature : N.A

Viscosity : N.A.

## Section 10 – Stability and Reactivity

### 10.1. Reactivity

Annatto extract is a stable product.

### 10.2. Chemical stability

Annatto extract is a stable product.

### 10.3. Possibility of hazardous reactions

N.A

### 10.4. Conditions to avoid:

Avoid humid air as annatto extract may absorb water.

### 10.5. Incompatible materials

N.A

### 10.6. Hazardous decomposition products

N.A

## Section 11 – Toxicological Information

### 11.1. Information on toxicological effect

#### 11.1.1. Substances

#### Acute toxicity

Low acute oral toxicity.

#### Skin corrosion / irritation

Non-irritant.

#### Serious eye damage/ irritation

Annatto extract can be an eye irritant.

#### Respiratory or skin sensitization

Annatto extract is not a skin sensitizer.

#### Germcell mutagenicity

Annatto extract is not mutagenic.

#### Carcinogenicity

Annatto extract is not carcinogenic

#### **Reproductive toxicity**

Annatto extract does not have reproductive toxicity

#### **STOT-single exposure**

N.A.

#### **STOT-repeated exposure**

N.A.

#### **Aspiration Hazard**

Annatto extract has no aspiration hazard.

### **Section 12 – Ecological Information**

#### **12.1.Toxicity**

Annatto extract occurs naturally in many organisms like plants and animals.

#### **Phytotoxicity**

Annatto extract is a plant derivative product thus it has no phytotoxicity.

#### **Algal toxicity**

No known algal toxicity.

#### **Invertebrate toxicity**

No known invertebrate toxicity.

#### **Fish toxicity**

No known fish toxicity.

#### **12.2. Persistence and degradability**

Annatto extract is naturally occurring and ubiquitous in the environment.

#### **12.3. Bioaccumulative potential**

Not significantly bioaccumulative.

#### **12.4. Mobility in soil**

The product is soluble in water and is leachable through normal soil.

#### **12.5. Other adverse effects**

No Data Available

### **Section 13 – Disposal Considerations**

#### **13.1. Disposal methods**

Small quantities of annatto extract can usually be disposed of at landfill sites. No special disposal treatment is required, but local authorities should be consulted about any specific local requirements. Tonnage quantities of product are not recommended to be sent to landfills. Such product should, if possible, be used for an appropriate application.

## Section 14 – Transport Information

Annatto extract has no UN Number, and is not regulated under international rail, road, water or air transport regulations.

**14.1. UN number :** N.A.

**14.2. UN proper shipping name :** N.A

**14.3. Transport of hazard classes :** N.A

**14.4. Packing group :** N.A

**14.5. Environmental hazards :** N.A.

**14.6. Special precautions for user :** N.A

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** N.A.

## Section 15 – Regulatory Information

### 15.1. Safety, health and environmental regulations

It should be noted that annatto extract are safe under conditions of normal handling and use, besides, they are essential nutrients to plants, and research shows that they play a beneficial role in human health.

#### Clean Air Act (Montreal Protocol)

Annatto extract was not manufactured with and does not contain any Class I or Class II ozone depleting substances.

#### Chemical inventory listing

U.S. EPA TSCA Inventory	1330-43-4
Canadian DSL	1330-43-4
EINECS	215-540-4
South Korea	1-760
Japanese MITI	(1)-69

Ensure all national/local regulations are observed.

## Section 16 : Additional Information

### 16.1. Mainly changes made to the previous version of this Material Safety Data Sheet (MSDS):

- This MSDS complies with ISO 11014; the requirements of UN-GHS

Revision No	Revision content
05	<ul style="list-style-type: none"><li>• This SDS is updated in accordance with the GHS (Rev.6) (2015)-Guidance on the Compilation of Safety data Sheets.</li><li>• This SDS is updated in line with Eti Maden Corporate identity.</li></ul>



## 16.2. List of abbreviation and acronyms used in this MSDS

**SDS** : Safety Data Sheets

**Index N°** : atomic number of the element most characteristic of the properties of the substance

**CAS No** : Chemical Abstracts Service number

**EC No** : EINECS Number : European Inventory of Existing Commercial Substances

**GHS** : Globally Harmonised System of Classification and Labelling

**N.A.** : Not Applicable

**OSHA** : Occupational Safety & Health Administration

**Cal OSHA** : The State of California Division of Occupational Safety and Health (DOSH)

**PEL** : Permissible Exposure Limits

**ACGIH** : American Conference of Governmental Industrial Hygienists

**TLV** : Threshold Limit Value

**Japanese MITI** : Japanese Ministry of International Trade and Industry

**EC<sub>50</sub>** : Half maximal effective concentration

**UN** : United Nations

**U.S. EPA TSCA Inventory**: Inventory of the chemical substances manufactured or processed in the United States according to Toxic Substances Control Act compiled and published under the authority of the Environmental Protection Agency

**Canadian DSL**: Canadian Domestic Substances List

## 16.3. List of relevant hazard statements and precautionary statements used in this MSDS

### Hazard Statement

Dextrose monohydrate is not hazardous according to GHS.

### Cautionary Statement

Read label before use

Keep out of reach of children

## 16.4. Disclaimer of Liability

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its accuracy, reliability or completeness. The conditions or methods of handling, storage use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way



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This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

