

CRYSTAL* Crown Castor Oil Revision Date: 24 May 2016 RUC078 (ENG) page 1 of 8

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier CRYSTAL* Crown Castor Oil

Synonyms: Ricinus Oil., Tangantangan Oil, Crystal LC USP and Crystal O

Chemical Abstracts Registry No: Mixture

REACH Registration Number: Exempt from REACH registration requirements (Annex V).

1.2. Relevant identified uses of the substance or mixture and uses advised against

personal care

1.3. Details of the supplier of the safety data sheet

Vertellus LLC 201 North Illinois Street, Suite 1800, Indianapolis, IN 46204 201-858-7900

e-mail Address: sds@vertellus.com

1.4. Emergency telephone number <u>Vertellus:</u> 1-201-858-7900

<u>CHEMTREC (USA):</u> +1-800-424-9300 (collect calls accepted)

CHEMTREC (International): +1-703-527-3887 (collect calls accepted)

NRCC (China): +86 532 83889090

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture (According to Regulation (EC) No 1272/2008, 29 CFR 1910.1200 and the Globally Harmonized System)

Not Classified as Hazardous

2.2. Label elements

Signal Word: Non-Hazardous

Hazard Precautions: Not Classified as Hazardous

Prevention Precautionary Statements: Note: These precautionary statements are not prescribed by directive 1272/2008 as this product is

not classified as hazardous under this directive. Wash hands thoroughly after handling with soap and water. Wear protective gloves, protective clothing, eye protection and face protection. If swallowed, in eyes, on skin or inhaled call a poison center or doctor/physician if you feel unwell. If inhaled, remove victim to fresh air and keep at rest in a comfortable position for breathing. Take off contaminated clothing before reuse. Store in a well-ventilated place. Keep container tightly closed.



CRYSTAL* Crown Castor Oil Revision Date: 24 May 2016 RUC078 (ENG)

page 2 of 8

SAFETY DATA SHEET

SECTION 3: Composition/information on ingredients

3.1. Substances or 3.2. Mixtures

Ingredient	CAS Number	Concentration (weight %)	EC Number	CLP Inventory/ Annex VI	EU CLP Classification (1272/2008)
CRYSTAL® CROWN Castor Oil	8001-79-4	~ 100	232-293-8	Not listed.	Not applicable.
Butylated hydroxyanisole	25013-16-5	0.016	246-563-8	Not listed	Skin Irr 2; H315 Eye Irr 2; H319 Aq Chronic 2; H411 Repro 2; H361 Carc 2; H351

NOTE: See Section 8 for exposure limit data for these ingredients. See Section 15 for trade secret information (where applicable). See Section 16 for the full text of the R-phrases above.

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin Contact: Wash thoroughly after skin contact. Get medical attention if irritation develops or persists.

Eye Contact: Rinse eyes immediately with large amounts of water for at least 15 minutes, occasionally lifting the eyelids. Seek

medical advice if symptoms persist.

No specific treatment is necessary since this material is not likely to be hazardous by inhalation. Remove from Inhalation:

exposure. If not breathing, give artificial respiration and call a physician.

If swallowed, contact physician or poison control center immediately. Ingestion:

4.2 Most important symptoms and effects, both acute and delayed

Not expected to be significantly irritating to skin or eyes. Oral exposure will cause nausea, vomiting, severe diarrhea Acute:

and cramping (colic).

Delayed Effects: None known.

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

Note to Physician: No specific indications. Treatment should be based on the judgment of the physician in response to the reactions of

the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Appropriate Extinguishing

Alcohol foam, carbon dioxide, dry chemical., Water spray

Media:

5.2. Special hazards arising from the substance or mixture

Hazardous Products of

Carbon dioxide, Carbon monoxide

Combustion:



CRYSTAL* Crown Castor Oil Revision Date: 24 May 2016 RUC078 (ENG)

page 3 of 8

SAFETY DATA SHEET

Potential for Dust Explosion: Not applicable.

5.3. Advice for firefighters

Basic Fire Fighting Guidance: Wear self-contained breathing apparatus and full protective clothing (i.e., Bunker gear). Skin and eye

contact should be avoided. Normal fire fighting procedures may be used.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuation Procedures: Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

See Section 8 for personal protective equipment recommendations. Remove all contaminated clothing **Special Instructions:**

to prevent further absorption. Decontaminate affected personnel using the first aid procedures in

Section 4. Leather shoes that have been saturated must be discarded.

6.2. Environmental precautions

Prevent releases to soils, drains, sewers and waterways.

6.3. Methods and material for containment and cleaning up

Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Remove all ignition sources, Ventilate the area of spill or leak. Wear protective equipment during clean-up. For small spills, use suitable absorbent material and collect for later disposal. For large spills, the area may require diking to contain the spill. Material can then be collected (eq., suction) for later disposal. After collection of material, flush area with water. Dispose of the material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws.

6.4. Reference to other sections

Refer to section 8 for information on selecting personal protective equipment. Refer to section 13 for information on spilled product, absorbent and clean up material disposal instructions.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for Unique Hazards: Not applicable.

Practices to Minimize Risk: Wear appropriate protective equipment when performing maintenance on contaminated equipment.

> Wash hands thoroughly before eating or smoking after handling this material. Do not eat, drink or smoke in work areas. Prevent contact with incompatible materials. Avoid spills and keep away from drains.

Handle in a manner to prevent generation of aerosols, vapors or dust clouds.

Special Handling Equipment: Not applicable.

7.2. Conditions for safe storage, including any incompatibilities

Storage Precautions & Recommendations:

This product should be stored at ambient temperature in a dry, well-ventilated location. Protect containers against physical damage. Keep away from heat, sparks, and flame Should be periodically

inspected.

Dangerous Incompatibility

Reactions:

Incompatible with oxidizing materials.

Incompatibilities with Materials

of Construction:

None known

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CRYSTAL* Crown Castor Oil Revision Date: 24 May 2016 RUC078 (ENG) page 4 of 8

SAFETY DATA SHEET

7.3. Specific end use(s)

If a chemical safety assessment has been completed an exposure scenario is attached as an annex to this Safety Data Sheet. Refer to this annex for the specific exposure scenario control parameters for uses identified in subsection 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Country Occupational Exposure Limit

USA - NIOSH REL (vegetable oil mist)

10 mg/m3 (total particulate); 5 mg/m3 (respirable fraction)

USA - ACGIH TLV (particulates, insoluble)

10 mg/m3 (total particulate); 3 mg/m3 (respirable fraction)

Australia, Belgium, Canada (Ontario and Quebec), New Zealand, 10 mg/m3 (inhalable)

Singapore (vegetable oil mist)

Sweden (vegetable oil mist) 0.2 mg/m3

Air Monitoring Method: Gravimetric analysis for total particulate and respirable fraction (<10 microns).

8.2. Exposure controls

Also see the annex to this SDS (if applicable) for specific exposure scenario controls.

Other Engineering Controls: All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be

provided.

Personal Protective Equipment: Impervious gloves, boots, and clothing, chemical goggles or face shield where necessary, and a NIOSH

approved chemical cartridge respirator or supplied air breathing apparatus with organic vapour/acid gas cartridges with particle filters. Wear impervious gloves (i.e., latex rubber), boots, work uniform and safety glasses Where overexposures are a concern, use NIOSH-approved dust/mist respirator as

necessary.

Respirator Caution: Observe OSHA regulations for respirator use (29 CFR 1910.134). Air-purifying respirators must not be

used in oxygen-deficient atmospheres.

Thermal Hazards: Not applicable.

Environmental Exposure

Controls:

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. If user operations

generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or

statutory limits.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance, State & Odor (ambient temperature):

Yellow to amber liquid with a strong, sweet characteristic odor.

Molecular Formula: Mixture Molecular Weight: Mixture

Vapor Pressure: No data available. Evaporation Rate: < 1 (Butyl Acetate = 1)

Specific Gravity or Density: 0.959 @ 25°C (typical) Vapor Density (air = 1): Heavier than air.





SAFETY DATA SHEET

Boiling Point: 313 °C Freezing / Melting Point: -18 to -10 °C

Solubility in Water: Insoluble Octanol / Water Coefficient: No data available.

pH: No data available. Odor Threshold: No data available.

840°F Viscosity: 7.5 stokes @ 25°C **Autoignition Temperature:**

Flash Point and Method: 540°F (282°C) PMCC Flammable Limits: No data available.

Flammability (solid, gas): No data available. **Decomposition Temperature:** No data available.

Explosive Properties: Not explosive Oxidizing Properties: Not an oxidizer

SECTION 10: Stability and reactivity

Not classified as dangerously reactive. 10.1. Reactivity

10.2. Chemical stability Stable

10.3. Possibility of hazardous

reactions

Polymerization is not expected to occur

10.4. Conditions to avoid None known

10.5. Incompatible materials Incompatible with oxidizing materials.

10.6. Hazardous decomposition

products

Products of incomplete combustion may include carbon monoxide, carbon dioxide and dense smoke.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Oral LD50: > 5000 mg/kg (rat) Castor Oil

Acute Dermal LD50: No data available. No data available. Acute Inhalation LC50: Skin Irritation: Mildly irritating to skin. Eye Irritation: Mildly irritating to eyes.

Not sensitizing (Weight of evidence) Skin Sensitization:

Mutagenicity: No data available. Reproductive / Developmental No data available.

Toxicity:

Carcinogenicity: Butylated Hydroxyanisole (BHA) is listed as "reasonably anticipated to be carcinogenic" on NTP's Report

on Carcinogens and by IARC as a Group 2B carcinogen; however, at 0.02%, the mixture is not classified

as carcinogenic.

This product contains chemicals listed on the Massachusetts Substance List for Right-to-Know Law. This product contains chemicals listed on the New Jersey Department of Health Hazard Right-to-Know

Program Hazardous Substance List.

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CRYSTAL* Crown Castor Oil Revision Date: 24 May 2016 RUC078 (ENG) page 6 of 8

SAFETY DATA SHEET

This product contains chemicals listed on the Minnesota Hazardous Substances List.

Target Organs: No data available.

Skin contact, Eye contact. Ingestion is not likely to be a primary route of exposure. Primary Route(s) of Exposure:

Most important symptoms and effects, both acute and delayed

Not expected to be irritating to skin or eyes. Not toxic by oral, dermal or inhalation routes. Not a

sensitizer. Delayed Effects: None known.

Additive or Synergistic effects: None known.

SECTION 12: Ecological information

No data available. 12.1. Toxicity

No data available 12.2. Persistence and degradability

No data available 12.3. Bioaccumulative potential

No data available 12.4. Mobility in soil

This substance is not a PBT or vPvB. 12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects This substance is a naturally-occurring vegetable oil. Large releases to environmental

media may disrupt flora and fauna. Take appropriate precautions to prevent the spills of

oils into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

US EPA Waste Number: Non-Hazardous

Waste Classification: (per US

regulations)

The waste may be classified as "special" or hazardous per State regulations.

Waste Disposal: NOTE: Generator is responsible for proper waste characterization. State hazardous waste regulations may differ substantially from federal regulations. Dispose of this material responsibly, and in accordance

with standard practice for disposal of potentially hazardous materials as required by applicable

international, national, regional, state or local laws, and environmental protection duty of care principles. Do NOT dump into any sewers, on the ground, or into any body of water. For disposal within the EC, the appropriate classification code according to the European Community List of Wastes should be used.

Note that disposal regulations may also apply to empty containers and equipment rinsates.

SECTION 14: Transport information

The following information applies to all shipping modes (DOT/IATA/ICAO/IMDG/ADR/RID/ADN), unless otherwise indicated:

14.1. UN number Non-Hazardous 14.2. UN proper Chemicals, n.o.s. (Crystal Crown

> shipping name Castor Oil)

14.4. Packing group 14.3. Transport hazard class(es) Non-Hazardous Not applicable

14.5. Environmental hazards Not applicable 14.6. Special precautions for Not applicable

user

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CRYSTAL* Crown Castor Oil Revision Date: 24 May 2016 RUC078 (ENG) page 7 of 8

SAFETY DATA SHEET

NA Emergency Guidebook Not applicable IMDG EMS: Not applicable;

Numbers:

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Category Y; Category Y (containing

<2% free fatty acids)

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical Inventory Lists: Status:

USA TSCA: Listed **EINECS**: Listed; 232-293-8 & 246-563-8

Canada(DSL/NDSL): DSL Japan: Not listed Listed Korea: Listed; KE-04979 & KE-11392 Australia: China: Listed Philippines: Listed Taiwan: New Zealand: Listed Listed German Water Hazard ID Number 3898, hazard class 2 - hazard to waters (tert-butyl-4-methoxyphenol)

Classification:

SARA 313: Not listed.

Reportable Quantities: Not applicable.

State Regulations: Not applicable.

HMIS IV: NFPA:

HEALTH 0
FLAMMABILITY 1
PHYSICAL HAZARD 0



15.2. Chemical safety assessment

A chemical safety assessment is not required as this substance is not classified as hazardous.

SECTION 16: Other information

Classification Method: Bridging principle - similar substance

Legend of Abbreviations:

LC = Lethal Concentration.

ACGIH = American Conference on Governmental Industrial Hygienists. LD = Lethal Dose.

CAS = Chemical Abstracts Service. NFPA = National Fire Protection Association.

CFR = Code of Federal Regulations. NIOSH = National Institute of Occupational Safety and Health.

DSL/NDSL = Domestic Substances List/Non-Domestic Substances List. NTP = National Toxicology Program.

EC = European Community. OSHA = Occupational Safety and Health Administration

EINECS = European Inventory of Existing Commercial Chemical Substances.

ELINCS = European List of Notified Chemical Substances.

PEL = Permissible Exposure Limit.

RQ = Reportable Quantity.

EU = European Union. SARA = Superfund Amendments and Reauthorization Act of 1986.

GHS = Globally Harmonized System. TLV = Threshold Limit Value.

WHMIS = Workplace Hazardous Materials Information System.

Important Note: Please note that the information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and

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CRYSTAL* Crown Castor Oil Revision Date: 24 May 2016 RUC078 (ENG) page 8 of 8

SAFETY DATA SHEET

completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. The information contained herein may change without prior notice. THIS SAFETY DATA SHEET SUPERSEDES ALL PREVIOUS EDITIONS.

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