



SAFETY DATA SHEET

(according to (EC) 1907/2006)

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

1.1. Product identifier

CASTUNG* 403 Z-3

Synonyms:

Castor oil, dehydrated, polymerized

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

Resin intermediate.

1.3. Details of the supplier of the safety data sheet

Vertellus LLC

201 North Illinois Street, Suite 1800

Indianapolis, Indiana 46204 USA

1-336-292-1781

e-mail Address: sds@vertellus.com

1.4. Emergency telephone number

Vertellus: 1-336-292-1781

CHEMTREC (USA): +1-800-424-9300 (collect calls accepted); (Int'l): +1-703-527-3887 (collect calls accepted)

SECTION 2: Hazards identification

HMIS Rating	
HEALTH	<input type="checkbox"/>
FLAMMABILITY	<input type="checkbox"/>
REACTIVITY	<input type="checkbox"/>

2.1. Classification of the substance or mixture

(According to Regulation (EC) No 1272/2008)

Not classified as hazardous under this directive.

(According to Directive 67/548/EEC)

Symbol: Not classified as hazardous under this directive.

Risk Phrases: Not classified as hazardous under this directive.

Safety Phrases: Not classified as hazardous under this directive.

2.2. Label elements

Signal Word:

Not required.

Hazard Precautions:



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Not classified as hazardous under this directive.

Prevention Precautionary Statements:

Note: These precautionary statements are not prescribed by Regulation EC 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.

First Aid Precautionary Statements:

Not required.

Storage Precautionary Statements:

Not required.

Disposal Precautionary Statements:

Not required.

2.3. Other hazards

Signs and Symptoms of Potential Overexposure: Single exposure to inhaling vapors or mist is not likely to be hazardous. Prolonged or repeated skin contact may cause skin irritation in some individuals. Contact with eyes may cause slight irritation. Not likely to be toxic by ingestion. Single dose oral toxicity is low. Not expected to be toxic by ingestion.

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

Medical Conditions Aggravated by Exposure:

SECTION 3: Composition/information on ingredients

3.1. Substances or 3.2. Mixtures

Ingredient	CAS Number	Concentration (%)	EINECS / ELINCS	CLP Inventory/ Annex VI	EU DSD Classification (67/548/EEC)	EU CLP Classification (1272/2008)
Castor oil, dehydrated, polymerized	68038-02-8	~ 100	Not listed.	Not listed.	N/A Not applicable	Not applicable.

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Skin Contact: Wash with soap and water. Get medical attention if irritation develops or persists.



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- Eye Contact:** Rinse eyes immediately with large amounts of water for at least 15 minutes, occasionally lifting the eyelids. Get medical attention if irritation or other symptoms exist.
- Inhalation:** No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels remove to fresh air and get medical attention if cough or other symptoms develop.
- Ingestion:** Do not give anything by mouth to an unconscious person. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Acute:** Single exposure to inhaling vapors or mist is not likely to be hazardous. Prolonged or repeated skin contact may cause skin irritation in some individuals. Contact with eyes may cause slight irritation. Not likely to be toxic by ingestion. Single dose oral toxicity is low. Not expected to be toxic by ingestion.
- Delayed Effects:** None known.

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

- Thermal Exposure:** Not applicable.
- 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 Media: Carbon dioxide Dry chemical Alcohol foam

5.2. Special hazards arising from the substance or mixture

Hazardous Products of Combustion: Carbon dioxide, Carbon monoxide

Potential for Dust Explosion: not available

Special Flammability Hazards: Can burn in fire releasing toxic vapors.
Material may burn, but does not ignite readily. Avoid high temperature.
Cloth or absorbent materials saturated with product may self-ignite on drying. Thoroughly wet any oil-soaked materials immediately with water and dispose in sealed metal containers.

5.3. Advice for firefighters

Basic Fire Fighting Guidance: Evacuate area and fight fire from a safe distance.
Wear self-contained breathing apparatus and protective clothing. Normal firefighting procedures may be used.

Flammability Classification (OSHA): Combustible Liquid - Class III B

NFPA Rating



SECTION 6: Accidental release measures



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6.1. Personal precautions, protective equipment and emergency procedures

Evacuation Procedures:	Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
Special Instructions:	Remove all contaminated clothing 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

Containment Techniques and Clean-up Procedures:	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 (eg., suction) for later disposal. After collection of material, flush area with water. LARGE SPILLS: Shut off leak if safe to do so. Clean up spills immediately using Protective Equipment recommended in Section VIII at a minimum. Retain all contaminated water for treatment.
Special Reporting Requirements:	Not applicable.

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.
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. Keep container closed when not in use. Materials saturated with product or containing product residues should be thoroughly wetted with water and disposed in metal containers to prevent self-ignition.
Dangerous Incompatibility Reactions:	Can react vigorously with oxidizing materials.
Incompatibilities with Materials of Construction:	None known

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



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8.1. Control parameters

Exposure Limits (United States): OSHA PEL: Not established ACGIH TLV: Not established

Exposure Limits (UK): Not established

8.2. Exposure controls

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

Personal Protective Equipment: Use chemical goggles, faceshields, boots and impervious clothing, if conditions involve potential for splashing or spraying.

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

Ventilation: All operations should be conducted in well-ventilated conditions. Local exhaust ventilation should be provided.

Other Engineering Controls: All appropriate engineering controls should be used to minimize exposure potential. Use exhaust ventilation to keep airborne concentrations below exposure limits.

Thermal Hazards: Not applicable.

Additive or Synergistic Effects: None known.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance, State & Odor (ambient temperature):	Clear amber liquid with a characteristic odor.		
Molecular Formula:	No data available.	Molecular Weight:	No data available.
Vapor Pressure:	No data available.	Evaporation Rate:	< 1 (Butyl Acetate = 1)
Specific Gravity or Density:	0.942	Vapor Density (air = 1):	Heavier than air.
Boiling Point:	No data available.	Freezing / Melting Point:	-40 °F
Solubility in Water:	Insoluble	Octanol / Water Coefficient:	No data available.
pH:	No data available.	Odor Threshold:	No data available.
Viscosity:	24 stokes @ 77C	Autoignition Temperature:	No data available.
Flash Point and Method:	580°F (304°C) PMCC	Flammable Limits:	No data available. (LEL) – No data available. (UEL)

9.2. Other information

Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity Not classified as dangerously reactive.

10.2. Chemical stability Stable

10.3. Possibility of hazardous reactions Polymerization is not expected to occur



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10.4. Conditions to avoid

Oxidizing materials

10.5. Incompatible materials

Can react vigorously 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 LD ₅₀ :	No data available.
Acute Dermal LD ₅₀ :	No data available.
Acute Inhalation LC ₅₀ :	No data available.
Skin Irritation:	Prolonged or repeated contact may cause irritation in some individuals.
Skin Sensitization:	No data available.
Eye Irritation:	May cause slight irritation.
Target Organs:	No data available.
Carcinogenicity:	No data available.
Teratogenicity:	No data available.
Reproduction:	No data available.
Neurotoxicity:	No data available.
Mutagenicity:	No data available.

SECTION 12: Ecological information

<u>12.1. Toxicity</u>	No data available.	Castor oil, dehydrated, polymerized
<u>12.2. Persistence and degradability</u>	No data available	
<u>12.3. Bioaccumulative potential</u>	No data available	
<u>12.4. Mobility in soil</u>	No data available	
<u>12.5. Results of PBT and vPvB assessment</u>	No data available.	
<u>12.6. Other adverse effects</u>	No data available.	
German Water Hazard Classification:	No data available.	Component Name: No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods



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US EPA Waste Number: Non-Hazardous

Waste Disposal: Dispose of this material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable international, national, regional, state or local laws. Do NOT dump into any sewers, on the ground, or into any body of water. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. Note that disposal regulations may also apply to empty containers and equipment rinsates.

SECTION 14: Transport information

14.1. UN number	Not applicable
14.2. UN proper shipping name	Chemicals, n.o.s. (Castor oil, dehydrated, polymerized)
14.3. Transport hazard class(es)	Not applicable
14.4. Packing group	Not applicable
14.5. Environmental hazards	Not applicable
14.6. Special precautions for user	No data available.
NA Emergency Guidebook Numbers:	Not applicable
	IMDG EMS: Not applicable
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

OSHA Hazards: **Health:** Possible Irritant. **Physical:** Not applicable.

WHMIS Classification: Not Controlled

Chemical Inventory Lists:	Status
TSCA:	XU
EINECS:	Not listed.
Canada(DSL/NDL):	DSL
Japan:	(8)-291; (8)-599
Korea:	KE-04985
Australia:	Present
New Zealand:	Present
China:	Present
Philippines:	Present
Switzerland:	Not listed.

New Zealand GHS Classification: Not classified by this country.

Japan GHS Classification: Not classified by this country.



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Korea (MOL) GHS Classification: Not classified by this country.

Australia GHS Classification: Not classified by this country.

Taiwan GHS Classification: Not classified by this country.

Indonesia GHS Classification: Not classified by this country.

SARA 313: Not listed.

Reportable Quantities: Not applicable.

Component Name:
Not listed.

15.2. Chemical safety assessment

Not applicable.

SECTION 16: Other information

Full text of R phrases in Section 3: Not applicable

Legend of abbreviations:

ACGIH = American Conference on Governmental Industrial Hygienists.
CAS = Chemical Abstracts Service.
CERCLA = Comprehensive Environmental, Response, Compensation and Liability Act (1990).
CFR = Code of Federal Regulations.
DSL/NDSL = Domestic Substances List/Non-Domestic Substances List.
EC = European Community.
EEC = European Economic Community.
EINECS = European Inventory of Existing Commercial chemical Substances.
ELINCS = European List of Notified Chemical Substances.
EU = European Union.
GHS = Globally Harmonized System.
LC = Lethal concentration.
LD = Lethal dose.
MOL = Ministry of Labor.
NEMA = National Emergency Management Agency.
NFPA = National Fire Protection Association.
NIOSH = National Institute of Occupational Safety and Health.
NTP = National Toxicological Program.
OSHA = Occupational Safety and Health Administration
PEL = Permissible exposure limit.
RQ = Reportable quantity.
SARA = Superfund Amendments and Reauthorization Act of 1986.
TLV = Threshold limit value.
WHMIS = Workplace Hazardous Materials Information System.



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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 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.

Revision Date: Dec 03, 2014

Original Date of Issue: 10 August 1992

Issued By: Regulatory Management Department

Revision Details: Revised in all sections to GHS format.