

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 01.15.2018

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Revision date: 05.03.2019

BiOH® 6305 Polyol

SECTION 1: Identification

Product identifier

Product name: BiOH® 6305 Polyol

Synonyms: Agrol® 3.6 Polyol

Product code: 110025020, 110025337, 110025307



Recommended use of the product and restriction on use

Relevant identified uses: For the manufacture of polyurethanes.

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

Cargill Bioindustrial

Cargill, Incorporated

15407 McGinty Road W

Wayzata, MN 55391

1-800-842-3631

CIS_CustomerService@Cargill.com

<http://www.cargill.com>

Emergency telephone number:

United States

ChemTel Inc

North America: 1-800-255-3924

International: 01-813-248-0585 (collect calls are accepted)

SECTION 2: Hazard(s) identification

GHS classification:

Eye irritation, category 2B

Label elements

Hazard pictograms: None

Signal word: Warning

Hazard statements:

H320 Causes eye irritation.

Precautionary statements:

P264 Wash skin thoroughly after handling.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists get medical advice/attention

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
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CAS number: 693217-63-9	Hydroxylated Soybean Oil	100
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Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

If potential for exposure exists refer to Section 8 for specific personal protective equipment

After inhalation:

Get medical advice if you feel unwell

If inhaled, remove to fresh air

After skin contact:

Wash with plenty of water / soap and rinse thoroughly

Get medical advice if skin irritation persists or you feel unwell

After eye contact:

Rinse cautiously with water for several minutes

Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists get medical advice, preferably from an ophthalmologist

After swallowing:

Rinse mouth and do not induce vomiting

Get medical advice if you feel unwell or concerned

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

May cause eye irritation, slight skin irritation, or no effect. Any additional important symptoms and effects are described in Section 11: Toxicological Information

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use Water (fog only), dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

Unsuitable extinguishing media:

Do not use a water stream as an extinguisher

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

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Not determined or not applicable.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

- Wear protective eye wear, gloves and clothing
- Ensure adequate ventilation
- Ensure air handling systems are operational

Environmental precautions:

- Should not be released into the environment
- Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

- Wear protective eye wear, gloves and clothing
- Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)
- Dispose of contents / container in accordance with local regulations

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

- Use appropriate personal protective equipment (see Section 8).
- Use only with adequate ventilation.
- Avoid breathing mist or vapor.
- Do not eat, drink, smoke or use personal products when handling chemical substances.
- Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities:

- Store in a cool, well-ventilated area.
- Protect from freezing and physical damage.
- Keep container tightly sealed.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

No occupational exposure limits noted for the ingredient(s).

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Use of local exhaust ventilation should be determined based on operations and if vapors or mist can be generated from heating or spray applications. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Personal protection equipment

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Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Respiratory protection:

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter. The following should be effective types of air-purifying respirators: Organic vapor cartridge.

General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

Wash contaminated clothing before reusing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid, Slight yellow to amber
Odor	Slight
Odor threshold	Not determined or not available.
pH	5.3 - 6.3 (50% dilutions with titration fluid)
Melting point/freezing point	34 - 45 °F (1 - 7 °C) (Freezing Point)
Initial boiling point/range	560 - 580 °F (293 - 304 °C)
Flash point (closed cup)	>200 °F (> 93.3 °C) Pensky Martin Closed Cup
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	0.17 mm Hg @ 175 °F (79.4 °C)
Vapor density	17.69
Density	Not determined or not available.
Relative density	0.95 - 1.1 @ 77 °F (25 °C)
Solubilities	< 0.004 @ 77 °F (25 °C) (weight %)
Partition coefficient (n-octanol/water)	Log 3.82 (n-octanol/water)
Auto/Self-ignition temperature	797 °F (425 °C)
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	100 - 6,000 cP @ 77 °F (25 °C)
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

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Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

Heat, flames, sparks, static discharge.

Exposure to light.

Exposure to moisture.

Incompatible materials:

Strong oxidizing agents.

Strong acids.

Isocyanates and moisture - contamination can cause a reaction and an increase in pressure. Contaminated product should never be placed in a sealed container. Never attempt to open a bulging drum. Contact Cargill if this occurs.

Hazardous decomposition products:

Carbon monoxide, Carbon dioxide.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Route	Result
Hydroxylated Soybean Oil	oral	LD50 > 2000 mg/kg bw (rats, female). Highest dose tested, no observed effects according to OECD Guideline 423

Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data:

Name	Result
Hydroxylated Soybean Oil	May be slightly irritating, but not sufficient for classification.

Serious eye damage/irritation

Assessment:

Causes eye irritation

Product data:

No data available.

Substance data:

Name	Result
Hydroxylated Soybean Oil	Causes eye irritation.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

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Product data:

No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

Skin contact may cause slight irritation. Eye contact may cause temporary redness, tearing, or blurred vision. If large quantities are ingested, may cause gastrointestinal upset with possible nausea.

Other information:

No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

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Name	Result
Hydroxylated Soybean Oil	EC50 (48 h) > 100 mg/L (Daphnia magna) according to OECD Guideline 202
Hydroxylated Soybean Oil	A 96 -hour Algal growth inhibition study was conducted with <i>S. capricornutum</i> . The NOEC was 12.5 mg/L and the IC25 and IC50 were 60.4 and >100 mg/L, respectively according to OECD Guideline 201.

Chronic (long-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data:

Name	Result
Hydroxylated Soybean Oil	Meets readily biodegradable according to ASTM E1720 Ready/Ultime Biodegradability testing similar to OECD 301B.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory agencies

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None

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Special precautions for user	None
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International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA): All ingredients are listed.

Significant New Use Rule (TSCA Section 5): Not Listed.

Export notification under TSCA Section 12(b): Not Listed.

SARA Section 302 extremely hazardous substances: Not Listed.

SARA Section 313 toxic chemicals: Not Listed.

CERCLA: Not Listed.

RCRA: See Section 13

Section 112(r) of the Clean Air Act (CAA): Not Listed.

Massachusetts Right to Know: Not Listed.

New Jersey Right to Know: Not Listed.

New York Right to Know: Not Listed.

Pennsylvania Right to Know: Not Listed.

SECTION 16: Other information

Abbreviations and Acronyms: None

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End of Safety Data Sheet