

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations


Printing date: October 04, 2017

Revision: October 04, 2017

1 Identification

- **Product identifier**
- **Trade name:** EkoCoat
- **Other means of identification:** No other identifiers
- **Recommended use and restriction on use**
- **Recommended use:** Coating
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Stewart Systems
8878 Harmony Church Rd.
Johnstown, OH 43031
USA
888-356-7659 (Toll-Free)
509-782-3626 (International)
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
Repr. 1 H360 May damage fertility or the unborn child. Route of exposure: Oral.
STOT SE 3 H335 May cause respiratory irritation.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

GHS05 GHS07 GHS08
- **Signal word:** Danger
- **Hazard statements:**
H332 Harmful if inhaled.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H360 May damage fertility or the unborn child. Route of exposure: Oral.
H335 May cause respiratory irritation.
- **Precautionary statements:**
P201 Obtain special instructions before use.

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P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing mist, vapors, or spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER/doctor.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

872-50-4	N-methyl-2-pyrrolidone ⚠ Acute Tox. 3, H331 ⚠ Repr. 1B, H360 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335 Flam. Liq. 4, H227	<20%
111-76-2	2-butoxyethanol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319 Flam. Liq. 4, H227	<5%
121-44-8	triethylamine ⚠ Flam. Liq. 2, H225 ⚠ Acute Tox. 3, H311; Acute Tox. 3, H331 ⚠ Skin Corr. 1A, H314 ⚠ Acute Tox. 4, H302	<5%

· **Additional information:** For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air and to be sure to call for a doctor.
 Provide oxygen treatment if affected person has difficulty breathing.
 In case of irregular breathing or respiratory arrest provide artificial respiration.

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- **After skin contact:**
Immediately remove any clothing soiled by the product.
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Protect unharmed eye.
Immediately remove contact lenses if possible.
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
A person vomiting while lying on their back should be turned onto their side.
- **Most important symptoms and effects, both acute and delayed:**
Irritating to eyes, respiratory system and skin.
Breathing difficulty
Coughing
Gastric or intestinal disorders when ingested.
Nausea in case of ingestion.
Disorientation
- **Danger:**
Danger of impaired breathing.
Harmful if inhaled.
May damage fertility or the unborn child. Route of exposure: Oral.
- **Indication of any immediate medical attention and special treatment needed:**
Medical supervision for at least 48 hours.
Monitor circulation.
If necessary oxygen respiration treatment.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Water fog / haze
Foam
Fire-extinguishing powder
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.

· **Environmental precautions** Avoid release to the environment.

· **Methods and material for containment and cleaning up**

Absorb liquid components with liquid-binding material.
Send for recovery or disposal in suitable receptacles.

· **Reference to other sections**

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling**

· **Precautions for safe handling:**

Keep receptacles tightly sealed.
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
Keep out of reach of children.
Avoid contact with the eyes and skin.
Avoid breathing mist, vapors, or spray.

· **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and receptacles:**

Store in cool, dry conditions in well sealed receptacles.
Avoid storage near extreme heat, ignition sources or open flame.
Use only receptacles specifically permitted for this substance/product.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.
Store away from oxidizing agents.

· **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

872-50-4 N-methyl-2-pyrrolidone

WEEL (USA)	Long-term value: 10 ppm Skin
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EV (Canada) Long-term value: 400 mg/m³

111-76-2 2-butoxyethanol

PEL (USA) Long-term value: 240 mg/m³, 50 ppm
Skin

REL (USA) Long-term value: 24 mg/m³, 5 ppm
Skin

TLV (USA) Long-term value: 97 mg/m³, 20 ppm
BEI

EL (Canada) Long-term value: 20 ppm

EV (Canada) Long-term value: 20 ppm
Skin

LMPE (Mexico) Long-term value: 20 ppm
A3, IBE

121-44-8 triethylamine

PEL (USA) Long-term value: 100 mg/m³, 25 ppm

TLV (USA) Short-term value: 4.14 mg/m³, 1 ppm
Long-term value: 2.07 mg/m³, 0.5 ppm
Skin

EL (Canada) Short-term value: 3 ppm
Long-term value: 1 ppm
Skin

EV (Canada) Short-term value: 3 ppm
Long-term value: 1 ppm

LMPE (Mexico) Short-term value: 3 ppm
Long-term value: 1 ppm
A4, PIEL

· Ingredients with biological limit values:

872-50-4 N-methyl-2-pyrrolidone

BEI (USA) 100 mg/L
Medium: urine
Time: end of shift
Parameter: 5-Hydroxy-N-methyl-2-pyrrolidone

111-76-2 2-butoxyethanol

BEI (USA) 200 mg/g creatinine
Medium: urine
Time: end of shift
Parameter: Butoxyacetic acid with hydrolysis

· Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.

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- Avoid contact with the eyes and skin.
- Pregnant women should strictly avoid inhalation or ingestion.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:**



Combined Organic Vapor and Particulate Respirator is recommended for use during all processing activities.

- For spills, respiratory protection may be advisable.
- Use respiratory protection when grinding or cutting material.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment**
No relevant information available.
- **Risk management measures** No relevant information available.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form: Liquid
Color: According to product specification

· **Odor:** Characteristic
· **Odor threshold:** Not determined.

· **pH-value:** Not determined.
· **Melting point/Melting range:** Not determined.
· **Boiling point/Boiling range:** Not determined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· Explosion limits

Lower: Not determined.

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· Upper:	Not determined.
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure:	Not determined.
· Density:	
Relative density:	1.04
Vapor density:	Not determined.
Evaporation rate:	Not determined.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
Reacts with oxidizing agents.
Reacts with strong acids and alkali.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** Oxidizers, strong bases, strong acids
- **Hazardous decomposition products**

Under fire conditions only:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)

Oral	LD50	5,819 mg/kg (rat)
Dermal	LD50	7,865-9,785 mg/kg
Inhalative	LC50/4h	>18.6 mg/l

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872-50-4 N-methyl-2-pyrrolidone

Oral	LD50	4,150 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4h	>5.1 mg/l (rat)

111-76-2 2-butoxyethanol

Oral	LD50	1,480 mg/kg (rat)
Dermal	LD50	1,001-2,000 mg/kg (rat) (Estimated)
Inhalative	LC50/4h	450 ppm (rat)

121-44-8 triethylamine

Oral	LD50	460 mg/kg (rat)
Dermal	LD50	570 mg/kg (rabbit)

· **Primary irritant effect:**

- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **IARC (International Agency for Research on Cancer):**
Present in trace quantities.

64-17-5 ethanol

1

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

· **Probable route(s) of exposure:**

Ingestion.
Inhalation.
Eye contact.
Skin contact.

· **Acute effects (acute toxicity, irritation and corrosivity):**

Causes serious eye damage.
Harmful if inhaled.
May cause respiratory irritation.

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.· **Carcinogenicity:** Based on available data, the classification criteria are not met.· **Reproductive toxicity:** May damage fertility or the unborn child. Route of exposure: Oral.· **STOT-single exposure:** May cause respiratory irritation.· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.· **Aspiration hazard:** Based on available data, the classification criteria are not met.**12 Ecological information**· **Toxicity**

- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.

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- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:** Avoid release to the environment.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number
· DOT, ADR, IMDG, IATA | Not regulated. |
| · UN proper shipping name
· DOT, ADR, IMDG, IATA | Not regulated. |
| · Transport hazard class(es)
· DOT, ADR, IMDG, IATA
· Class | Not regulated. |
| · Packing group
· DOT, ADR, IMDG, IATA | Not regulated. |
| · Environmental hazards
· Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

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15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

872-50-4	N-methyl-2-pyrrolidone
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111-76-2	2-butoxyethanol
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121-44-8	triethylamine
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· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

Present in trace quantities.

64-17-5	ethanol
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· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

Present in trace quantities: 64-17-5, 67-56-1.

872-50-4	N-methyl-2-pyrrolidone
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64-17-5	ethanol
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67-56-1	methanol
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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency):**

111-76-2	2-butoxyethanol	NL
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· **IARC (International Agency for Research on Cancer):**

Present in trace quantities.

64-17-5	ethanol	1
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· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** October 04, 2017 / -

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxique

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Repr. 1: Reproductive toxicity – Category 1

Repr. 1B: Reproductive toxicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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