

Safety Data Sheet

GREENchoice Heavy Duty Construction Adhesive

Section 1. Identification

GHS product identifier	: GREENchoice Heavy Duty Construction Adhesive
Product type	: Liquid.
CAS #	: mixture
Address	: Franklin International 2020 Bruck Street Columbus OH 43207
Contact person	: Franklin Technical Services
Telephone	: (800) 877-4583
In case of emergency	: Franklin Security (614) 445-1300
Reference number	: 3631
Product code	: 7471
Date of revision	: 7/29/2015.
Print date	: 7/29/2015.
Chemtrec (24 Hour)	: (800) 424 - 9300
Chemtrec International	: (703) 527 - 3887
Chemical family	: Adhesive.

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

Not applicable.

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys) (oral) - Category 2
	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 12%
GHS label elements	
Hazard pictograms	
Signal word	: Warning
Hazard statements	: May cause damage to organs through prolonged or repeated exposure if swallowed. (kidneys)
Precautionary statements	
General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	: Do not swallow. Do not eat, drink or smoke when using this product.
Response	: Get medical attention if you feel unwell.

Section 2. Hazards identification

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Hazardous ingredients

United States

Name	CAS number	%
urea	57-13-6	1 - 5
ethanediol	107-21-1	1 - 5

Canada

Name	CAS number	%
oxydipropyl dibenzoate	27138-31-4	5 - 10
urea	57-13-6	1 - 5
ethanediol	107-21-1	1 - 5

Mexico

<u>Mexico</u>					Classification			
Name	CAS number	UN number	%	IDLH	н	F	R	Special
urea	57-13-6	Not available.	1 - 5	-	2	0	0	-
ethanediol	107-21-1	Not available.	1 - 5	-	2	1	0	-
oxydipropyl dibenzoate	27138-31-4	Not available.	5 - 10	-	2	0	0	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid	Section 4. First aid measures			
Ingestion	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.			
Most important symptoms/	effects, acute and delayed			
Potential acute health effe	<u>cts</u>			
Eye contact	: No known significant effects or critical hazards.			
Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.			
Skin contact	: No known significant effects or critical hazards.			
Ingestion	: No known significant effects or critical hazards.			
Over-exposure signs/sym	<u>ptoms</u>			
Eye contact	: No specific data.			
Inhalation	: No specific data.			
Skin contact	: No specific data.			
Ingestion	: No specific data.			
Indication of immediate me	dical attention and special treatment needed, if necessary			
Notes to physician	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.			
Specific treatments	: No specific treatment.			
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.			

See toxicological information (Section 11)

Section 5. Fire-fighting measures		
Extinguishing media		
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.	
Unsuitable extinguishing media	: None known.	
Specific hazards arising from the chemical	: In a fire or if heated, a pressure increase will occur and the container may burst.	
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides	
Special protective actions for fire-fighters	 Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. 	
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.	

Section 6. Accidental release measures

Personal precautions, protec	tive equipment and emergency procedures
For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for co	ntainment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	: Store between the following temperatures: 4.4444 to 26.667°C (40 to 80°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Contro	parameters

United States

Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
urea	AIHA WEEL (United States, 10/2011).
	TWA: 10 mg/m ³ 8 hours.
ethanediol	OSHA PEL 1989 (United States, 3/1989).
	CEIL: 50 ppm
	CEIL: 125 mg/m ³
	ACGIH TLV (United States, 3/2015).
	C: 100 mg/m ³ Form: Aerosol

<u>Canada</u>

Occupational exposure limits		TWA (8 hours)		STEL (15 mins)		Ceiling					
Ingredient	List name	ppm	mg/ m³	Other	ppm	mg/ m³	Other	ppm	mg/ m³	Other	Notations
ethanediol	US ACGIH 3/2015 AB 4/2009 BC 2/2015 ON 7/2015	- - - - -	- - - 10 - -	- - - - -	- - - - -	- - 20 - -	- - - -	- - - 50 -	100 100 100 - - 100	- - - - -	[a] [3] [b] [a] [c] [d] [b]
urea	QC 1/2014 US AIHA 10/2011	-	- 10	-	50 -	127 -	-	-	-	-	[e]

[3]Skin sensitization

Form: [a]Aerosol [b]aerosol [c]Particulate [d]Vapour [e]vapour and mist

<u>Mexico</u>

Occupational exposure limits

Ingredient	Exposure limits
ethanediol	NOM-010-STPS (Mexico, 9/2000). LMPE-Pico: 100 mg/m ³

Consult local authorities for acceptable exposure limits.

Appropriate engineering controls	: 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.
Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measure	<u>s</u>
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection	

Section 8. Exposure controls/personal protection

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Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid. [Paste.]
Color	: Beige.
Odor	: Characteristic. [Slight]
Odor threshold	: Not available.
рН	: 5
Melting point	: Not available.
Boiling point	: 100°C (212°F)
Flash point	: Closed cup: >93.333°C (>200°F) [Setaflash.]
Evaporation rate	: <1 (butyl acetate = 1)
VOC (less water, less exempt solvents)	: 1.51 g/l
Relative density	: 1.36163

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
urea	LD50 Dermal LD50 Oral	Rabbit Rat	>21000 mg/kg 8471 mg/kg	-
ethanediol	LC50 Inhalation Vapor LD50 Oral	Rat Rat	10.92 mg/l 4700 mg/kg	4 hours -

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
urea	Skin - Mild irritant	Human	-	72 hours 22 milligrams Intermittent	-
Skin - Moderate irritant	Skin - Moderate irritant	Human	-	24 hours 20 Percent	-
ethanediol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Eyes - Mild irritant	Eyes - Mild irritant	Rabbit	-	1 hours 100 milligrams	-
Eyes - Moderate irritant	Eyes - Moderate irritant	Rabbit	-	6 hours 1440 milligrams	-
Skin - Mild irritant	Skin - Mild irritant	Rabbit	-	555 milligrams	-

Conclusion/Summary

- Skin

: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Eyes

: This product may irritate eyes upon contact.

Respiratory

: Not available. Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
urea ethanediol	Category 3 Category 2 Category 3	Not applicable. Oral Not applicable.	Narcotic effects kidneys Narcotic effects

Information on the likely routes of exposure

: Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Symptoms related to the	e physical, chemical and toxicological characteristics
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.
Delayed and immediate	effects and also chronic effects from short and long term exposure
<u>Short term exposure</u>	
Potential immediate effects	: Not available.

Section 11. Toxicological information

Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Section 12. Ecological information

Toxicity Product/ingredient name Result **Species** Exposure Acute EC50 6573.1 mg/l Fresh water Crustaceans - Ceriodaphnia 48 hours urea dubia - Neonate Daphnia - Daphnia magna -48 hours Acute EC50 3910000 µg/l Fresh water Neonate Fish - Oreochromis 96 hours Acute LC50 22.5 ppt Fresh water mossambicus - Young Chronic NOEC 2 g/L Fresh water Fish - Heteropneustes fossilis 30 days ethanediol Acute EC50 10940 mg/l Algae - Selenastrum 96 hours capriocornutum Crustaceans - Ceriodaphnia 48 hours Acute LC50 13140000 µg/l Fresh water dubia Acute LC50 41000000 µg/l Fresh water Daphnia - Daphnia magna -48 hours Neonate Fish - Pimephales promelas 96 hours Acute LC50 8050000 µg/l Fresh water Chronic NOEC 10000 mg/l Algae - Selenastrum 96 hours capriocornutum

Conclusion/Summary : Not available.

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
urea ethanediol	-	-	Readily Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
urea ethanediol	<-1.73 -1.36	>10 10	low low
	Ne lucaus cincificant offecte	· · · · · · · · · · · · · · · · · · ·	

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	ΙΑΤΑ
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.
Additional information	-	-	-	-	-	-

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to Annex II of MARPOL 73/78 and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations	: TSCA 8(a) CDR Exempt/Partial	exemption: Not determined
	United States inventory (TSCA 8b):	All components are listed or exempted.
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: Listed	
Clean Air Act Section 602 Class I Substances	: Not listed	
Clean Air Act Section 602 Class II Substances	: Not listed	
SARA 302/304		
Composition/information	on ingredients	
No products were found.		
SARA 304 RQ	: Not applicable.	
SARA 311/312		
Classification	: Delayed (chronic) health hazard	
Composition/information	on ingredients	

Section 15. Regulatory information

Name	%	hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
urea		No.	No.	No.	Yes.	No.
ethanediol		No.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	ethanediol	107-21-1	1 - 5
Supplier notification	ethanediol	107-21-1	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

: The following components are listed: ETHYLENE GLYCOL

New York

: The following components are listed: Ethylene glycol

New Jersey

: The following components are listed: ETHYLENE GLYCOL; 1,2-ETHANEDIOL

- Pennsylvania
- : The following components are listed: 1,2-ETHANEDIOL

California Prop. 65

Not	available.
1101	avanabio.

Ingredient name	Cancer	-	•	Maximum acceptable dosage level
Not applicable.				

Canada

Canadian lists Canadian NPRI

CEPA Toxic substances

: The following components are listed: Ethylene glycol

- : None of the components are listed.
- **Canada inventory**
- : At least one component is not listed in DSL but all such components are listed in NDSL.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico

<u>Mexico</u> Classification	:
	Health Health Flammability Special
International regulations	
International lists	: Australia inventory (AICS): Not det China inventory (IECSC): Not deter

termined. ermined. Japan inventory: Not determined. Korea inventory: Not determined. Malaysia Inventory (EHS Register): Not determined. New Zealand Inventory of Chemicals (NZIoC): Not determined. Philippines inventory (PICCS): Not determined. Taiwan inventory (CSNN): Not determined.

Section 15. Regulatory information

Europe	: Not determined.
Chemical Weapons Convention List Schedule I Chemicals	: Not listed
Chemical Weapons Convention List Schedule II Chemicals	: Not listed
Chemical Weapons Convention List Schedule III Chemicals	: Not listed

Section 16. Other information





Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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revision Date of previous issue : 6/2/2015.	Date of printing	: 7/29/2015.
		: 7/29/2015.
Version : 4.2	Date of previous issue	: 6/2/2015.
	Version	: 4.2

Section 16. Other information

Key to abbreviations : ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CHS = Clobally Harmonized System of Closesifi	cation and Labelling of Chemicals
IATA = International Air Transport Association IBC = International Air Transport Association IBC = International Maritime Dangerous Goo LogPow = logarithm of the octanol/water partitio MARPOL 73/78 = International Convention for 1973 as modified by the Protocol of 1978. ("Ma UN = United Nations	on coefficient he Prevention of Pollution From Ships,
References : Not available.	

✓ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.