



Green Plains
GHS SAFETY DATA SHEET
 SYRUP

SDS DATE: 09/28/2017

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME (GHS Product Identifier): Syrup
(Other means of Identification): Condensed Distillers Soluble

PRODUCT INTENDED USE AND RESTRICTION: Animal feed

MANUFACTURER: Green Plains, Inc.
DIVISION:

Green Plains Atkinson LLC. 87590 Hill Crest Rd. Atkinson, NE 68713 P.O. Box 391, Atkinson, NE 68713 Phone: 402-925-5570 Fax: 402-925-2988 <input checked="" type="checkbox"/>	Green Plains Bluffton LLC. 1441 S. Adams St., Bluffton, IN 46714 Phone: 260-353-1212 Fax: 260-353-1100 <input checked="" type="checkbox"/>	Green Plains Central City LLC. 214 20 th St., Central City, NE 68826 Phone: 308-946-9700 Fax: 308-946-2623 <input checked="" type="checkbox"/>	Green Plains Fairmont LLC. 1125 N Bixby Road, Fairmont, MN 56031 Phone: 507-238-3600 Fax: 507-238-3624 <input checked="" type="checkbox"/>	Green Plains Hereford LLC 4300 County Road 8 Hereford, TX 79045 Phone: 806-258-7800 Fax: 806-258-7801 <input checked="" type="checkbox"/>
Green Plains Holdings II LLC.-Lakota 1660 428 th St., Lakota, IA 50451 Phone: 515-886-2222 Fax: 515-886-2127 <input type="checkbox"/>	Green Plains Holdings II LLC.-Riga 7025 Siberhorn Hwy, Blissfield, MI 49228 P.O. Box 12, Riga, MI 49276 Phone: 517-486-6190 Fax: 517-486-6192 <input checked="" type="checkbox"/>	Green Plains Hopewell LLC 701 South 6th Avenue Hopewell, VA 23860 Phone: 804-668-0010 Fax: 804-668-0020 <input checked="" type="checkbox"/>	Green Plains Madison LLC 395 Bissell St Madison, IL 63060 Phone: 618-451-4420 Fax: 618-452-8946 <input checked="" type="checkbox"/>	Green Plains Mt Vernon LLC 8999 W Franklin Rd Mt Vernon, IN 47620 Phone: 812-985-4023 Fax: 812-985-9983 <input checked="" type="checkbox"/>
Green Plains Obion LLC. 2098 McDonald Rd., Rives, TN 38253/P.O. Box 95, Obion, TN 38240 Phone: 731-536-1286 Fax: 731-536-1434 <input checked="" type="checkbox"/>	Green Plains Ord LLC. 48267 Val-E Road, Ord, NE 68862 Phone: 308-496-4823 Fax: 308-496-4890 <input checked="" type="checkbox"/>	Green Plains Otter Tail LLC. 24096 170th Ave., Fergus Falls, MN 56537 Phone: 218-998-4301 Fax: 218-998-4302 <input checked="" type="checkbox"/>	Green Plains Shenandoah LLC. 4124 Airport Rd., Shenandoah, IA 51601 Phone: 712-246-2932 Fax: 712-246-3988 <input checked="" type="checkbox"/>	Green Plains Superior LLC. 1495 320th Ave, Superior, IA 51363 Phone: 712-858-4666 Fax: 712-858-4684 <input checked="" type="checkbox"/>
Green Plains Wood River LLC. 7874 South 140th Road, Wood River, NE 68883 Phone: 308-385-1200 Fax: 308-385-9990 <input checked="" type="checkbox"/>	Green Plains York LLC 1414 County Rd O York, NE 68467 Phone: 402-362-2285 Fax: 402-362-7041 <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Green Plains Grain Company LLC. Archer 2132 Archer Road Archer, NE 68816 Phone: 308-795-2211 <input type="checkbox"/>	Green Plains Grain Company LLC. Cimarron 19016 Road I Kismet, KS 67859 Phone: 620-624-6296 Fax: 620-624-4411 <input type="checkbox"/>	Green Plains Grain Company LLC. Essex 411 North Street, Essex, IA 51638 Phone: 712-379-3155 Fax: 712-379-3175 <input type="checkbox"/>	Green Plains Grain Company LLC. Hopkins 200 N. Railroad Hopkins, MO 64461 Phone: 660-778-3331 Fax: 660-778-3676 <input type="checkbox"/>	<input type="checkbox"/>

CHEMTREC PHONE (24HR Emergency Telephone): 1-800-424-9300 (Within U.S.A)
INTERNATIONAL CHEMTREC CALL: 1-703-527-3887
OTHER CALLS: 1-402-884-8700 (M-F, 8 AM-5 PM, Central time (U.S.A & Canada); within U.S.A)
FAX PHONE: 1-402-884-8776 (M-F, 8 AM-5 PM, Central time (U.S.A & Canada); within U.S.A)

SECTION 1 NOTES: Syrup is the liquid remains of grain fermentation residue after distillation. No ethanol is present. No hazardous compounds are known to be present.

SECTION 2: HAZARDS IDENTIFICATION

GHS LABELING AND CLASSIFICATION: This product meets the definition of the following hazard classes as defined by the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).



Green Plains

GHS SAFETY DATA SHEET

SYRUP

SDS DATE: 09/28/2017

GHS CLASSIFICATION ACCORDING TO ANNEX II:

HEALTH	ENVIRONMENTAL	PHYSICAL
Not Classified	Not Classified	Not classified
SIGNAL WORD:		NONE
SYMBOL:		N/A
HAZARD STATEMENT:		N/A
PRECAUTIONARY STATEMENTS:	PREVENTIVE:	N/A
	RESPONSE:	N/A
	STORAGE:	N/A
	DISPOSAL:	N/A

Any Regional Considerations: N/A

SECTION 2 NOTES: N/A

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME: Condensed Distillers Solubles
COMMON NAME: Syrup
CHEMICAL FAMILY: N/A
CHEMICAL FORMULA: N/A
SYNONYMS: Condensed Distillers Solubles

INGREDIENT: Condensed distillers Solubles
 Water

NAME	CAS#	EC#	ICSC#	% WT	% VOL
Condensed Distillers Solubles	N/A	N/A	N/A	60.0%	N/A
Water	7732-18-5	231-791-2	N/A	40.0%	N/A

CARCINOGENICITY

OSHA: NOT LISTED
 OTHER: N/A

ACGIH: NOT LISTED

NTP: NOT LISTED

IARC: NOT LISTED

IMPURITIES/STABILIZING ADDITIVES IDENTIFICATION: N/A

IMPURITIES/STABILIZING ADDITIVES CLASSIFICATION (if applicable): N/A

SECTION 3 NOTES: None Available

SECTION 4: FIRST AID MEASURES

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to health professional with contaminated individual.

EMERGENCY OVERVIEW: Avoid body contact; avoid ingestion; wear appropriate PPEs

ROUTES OF ENTRY/FIRST AID:

EYES CONTACT: Flush with clean water

SKIN CONTACT: Flush with clean water

INHALATION: Remove victim to fresh air and seek medical attention if necessary

INGESTION: Seek medical attention if discomfort is noted

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/A

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Condensed distillers soluble are an animal feed product. Health effects upon exposure or ingestion are expected to be minimal



Green Plains GHS SAFETY DATA SHEET

SYRUP

SDS DATE: 09/28/2017

SECTION 4 NOTES: None Available

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Use media suitable to extinguish surrounding fire

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS: Wear appropriate PPEs

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A
(Define specific hazards arising from the chemical e.g., nature of any hazardous combustion products)

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

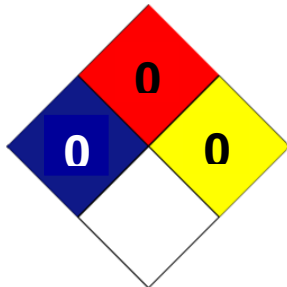
FLAMMABLE LIMITS IN AIR (% by volume):
UPPER LIMIT: N/A
LOWER LIMIT: N/A

FLASH POINT:
F: N/A
C: N/A

METHOD USED: N/A

AUTOIGNITION TEMPERATURE:
F: N/A
C: N/A

NFPA HAZARD CLASSIFICATION:



HEALTH=0
FLAMMABILITY=0
REACTIVITY=0
OTHER=N/A

HMIS HAZARD CLASSIFICATION (0-4 scale):

Syrup	
HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B
Safety glasses, glove	

SECTION 5 NOTES: None Available

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Condensed distillers soluble are an animal feed product. Health effects upon exposure or ingestion are expected to be minimal

ENVIRONMENTAL PRECAUTIONS: Keep product away from sewers, aquatic water bodies

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Stop spill at source. Confine spill by diking or impoundment. Clean-up spill but do not flush to sewer or surface water

SECTION 6 NOTES: N/A

SECTION 7: HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING: Avoid contact with eyes and mucous membranes. Use protective equipment appropriate for the product temperature

CONDITIONS FOR SAFE STORAGE (any incompatibilities): Store in a cool dry place away from incompatible materials

SECTION 7 NOTES: None Available



Green Plains
GHS SAFETY DATA SHEET
 SYRUP

SDS DATE: 09/28/2017

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS/GUIDELINES:

INGREDIENTS	ACGIH	NIOSH	OSHA-FINAL PELs
Corn syrup	N/A	N/A	N/A OSHA PEL-TWA; N/A OSHA PEL-STEL; N/A OSHA PEL-Ceiling

ENGINEERING CONTROLS:

VENTILATION: Local ventilation and dilution ventilation

PERSONAL PROTECTIVE EQUIPMENT (PPE):

EYE PROTECTION: Safety glasses

SKIN PROTECTION: Gloves

RESPIRATORY PROTECTION: N/A

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate PPEs when product is hot.

SECTION 8 NOTES: None Available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Tan color

PHYSICAL STATE: Liquid

COLOR: Tan color

ODOR: Sweet smell

pH AS SUPPLIED: 3-4
pH (Other):

FREEZING POINT: N/A
F:
C:

BOILING POINT: N/A
F:
C:

MELTING POINT: N/A
F:
C:

FLASH POINT: N/A
F:
C:

EVAPORATION RATE (BASIS=1): N/A

FLAMMABILITY (by %volume):
UPPER FLAMMABILITY LIMIT: N/A
LOWER FLAMMABILITY LIMIT: N/A

VAPOR PRESSURE (mmHg): N/A
@
F:
C:



GHS SAFETY DATA SHEET

SYRUP

SDS DATE: 09/28/2017

VAPOR DENSITY (AIR = 1): N/A

@

F:
C:

SOLUBILITY IN WATER: Soluble

PARTITION COEFFICIENT n-octanol/water: N/A

AUTO-IGNITION TEMPERATURE: N/A

F:
C:

DECOMPOSITION TEMPERATURE: N/A

F:
C:

SPECIFIC GRAVITY (H2O = 1): N/A

@

F:
C:

PERCENT SOLIDS BY WEIGHT: About 60%

PERCENT VOLATILE: N/A

BY WT/BY VOL @

F:
C:

VOLATILE ORGANIC COMPOUNDS (VOC):

WITH WATER:	N/A	LBS/GAL
WITHOUT WATER:	N/A	LBS/GAL

MOLECULAR WEIGHT: N/A

VISCOSITY: N/A

@

F:
C:

SECTION 9 NOTES: None Available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: No reaction with water and common materials

STABILITY: This product is susceptible to degradation by growth of microorganisms on exposed surfaces over time

CONDITIONS TO AVOID (STABILITY): Avoid contact with strong oxidizers

POSSIBILITY OF HAZARDOUS REACTIONS: No polymerization

INCOMPATIBILITY MATERIAL: Oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide; carbon dioxide; irritant gases, and smoke

SECTION 10 NOTES: None Available

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: The toxicity data of this product has not been determined by testing or research, but to our best knowledge, this product is non-toxic.

ROUTES OF EXPOSURE: Ingestion

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:



Green Plains GHS SAFETY DATA SHEET

SYRUP

SDS DATE: 09/28/2017

CONTACT WITH EYE: Product may be considered an eye irritant. The effect is temporary

CONTACT WITH SKIN: May cause irritation to skin

INHALATION: N/A

INGESTION: N/A

DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE:

ACUTE INHALATION EFFECTS: Human, inhalation, TC₁₀: No data

ACUTE ORAL EFFECTS: Rat, oral, LD₅₀: Not applicable

CHRONIC EFFECTS: Not Applicable

NUMERICAL MEASURES OF TOXICITY:

LD50/LC50: No data available

IRRITATION DATA: No data available

CARCINOGENICITY: No data available

EPIDEMIOLOGY: No data available

TERATOGENICITY: No data available

REPRODUCTIVE EFFECTS: No data available

NEUROTOXICITY: No data available

MUTAGENICITY: No data available

OTHER: No data available

SECTION 11 NOTES: None Available

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY (AQUATIC AND TERRESTRIAL, WHERE AVAILABLE): N/A

PERSISTENCE AND DEGRADABILITY: When spilled on land, syrup is expected to biodegrade

BIOACCUMULATIVE POTENTIAL: N/A

MOBILITY IN SOIL: Expected to be mobile in soil

OTHER ADVERSE EFFECTS: N/A

SECTION 12 NOTES: None Available

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: All recovered material should be labeled, packages, transported and disposed of or reclaimed in conformance with applicable state and federal laws and regulations

RCRA HAZARD CLASS: N/A

DESCRIPTION OF WASTE RESIDUES AND INFORMATION ON THEIR SAFE HANDLING AND METHODS OF DISPOSAL, INCLUDING ANY CONTAMINATED PACKAGING: Recommend using a non-hazardous solvent to remove the product. Follow local, state, and federal regulations for disposal of the waste material, regardless of its waste classification

SECTION 13 NOTES: None Available

SECTION 14: TRANSPORT INFORMATION



Green Plains GHS SAFETY DATA SHEET

SYRUP

SDS DATE: 09/28/2017

U.N. GHS TRANSPORT REQUIREMENT

UN NUMBER: N/A
PROPER SHIPPING NAME: Syrup
TRANSPORT HAZARD CLASS: N/A
PACKING GROUP: N/A
LABEL STATEMENT: N/A
MARINE POLLUTANT: No

SPECIAL PRECAUTIONS FOR USER: N/A

SECTION 14 NOTES: None Available

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TOXIC SUBSTANCE CONTROL ACT (TSCA): All chemicals are listed or exempt from listing in the toxic substances control act inventory

OCCUPATIONAL, SAFETY AND HEALTH ADMINISTRATION (OSHA): Not an OSHA specifically regulated substance

COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT (CERCLA): This product is not a listed hazardous substance and does not have a reportable quantity

CLEAN WATER ACT (CWA): N/A

CLEAN AIR ACT (CAA): N/A

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III INFORMATION:

SARA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: N/A

SARA SECTION 311/312 (40 CFR 370) HAZARD CATEGORIES: N/A

SARA 313 REPORTABLE INGREDIENTS: N/A

STATE REGULATIONS: N/A

INTERNATIONAL REGULATIONS: N/A

SECTION 15 NOTES: None Available

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Green Plains Inc. be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Green Plains Inc. has been advised of the possibility of such damages.

REFERENCES:

GHS Annex II
GHS SDS Instruction

ACRONYMS/ABBREVIATIONS:

ACGIH-American Conference of Governmental Industrial Hygienists
CAA-Clean Air Act
CAS-Chemical Abstracts Service
CERCLA-Comprehensive Response Compensation and Liability Act
CHEMTREC-It serves as a round-the-clock resource for obtaining immediate response information for incidents involving hazardous material and dangerous goods.
CWA-Clean Water Act
EC-European Commission
GHS-Globally Harmonized System of Classification and Labeling of Chemicals
IARC-International Agency for the Research on Cancer



GHS SAFETY DATA SHEET

SYRUP

SDS DATE: 09/28/2017

ICSC-International Chemical Safety Cards

LC50-The concentration of a chemical in air or of a chemical in water which causes the death of 50% of a group of test animals.

LD50-The amount of a chemical, given all at once, which causes the death of 50% of a group of test animals.

NIOSH-The National Institute for Occupational Safety and Health

NTP-National Toxicology Program

OSHA-Occupational Safety and Health Administration

RCRA-Resource Conservation and Recovery Act

RQ-Reportable Quantity

SARA-Superfund Amendments and Reauthorization Act

STOST-SE-Specific Target Organ Toxicity Single Exposure

TPQ-Threshold Planning Quantity

TSCA-Toxic Substance Control Act

U.N.-United Nation

UNCED-United Nations Conference on Environment and Development

VOL-Volume

WT-Weight