Identification Section 1 Page E1 of E2

# INNOVATING SCIENCE

"Cutting edge science for the classroom"

221 Rochester Street (585) 226-6177

**CHEMTREC 24 Hour Emergency** Phone Number (800) 424-9300

For laboratory and industrial use only. Not for drug, food or household use.

**CHROMATOGRAPHY SOLVENT II** Product

Synonyms

Section 2 Hazards identification

Signal word: DANGER

Pictograms: GHS02 / GHS06 / GHS08

Target organs: Central nervous system, Liver, Kidneys, Heart







### GHS Classification:

Flammable liquid (Category 3) Acute toxicity, oral (Category 3) Acute toxicity, dermal (Category 3) Acute toxicity, inhalation (Category 3) STOT-SE (Category 1)

## GHS Label information: Hazard statement:

H226: Flammable liquid and vapour.

H301: Toxic if swallowed.

H311: Toxic in contact with skin

H331: Toxic if inhaled.

H370: Causes damage to organs.

## Precautionary statement:

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P233: Keep container tightly closed.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge

P260: Do not breathe mist/vapours/spray

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P330: Rinse mouth

P302+P352: IF ON SKIN: Wash with plenty of water and soap.

P361+P364: Take off immediately all contaminated clothing and wash it before reuse.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing

P311: Call a POISON CENTER or doctor.

P370+P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water

spray to extinguish.

P403+P235: Store in a well-ventilated place. Keep cool.

P405: Store locked up.

P501: Dispose of contents/container to a licensed chemical disposal agency in

accordance with all local, state and federal regulations.

## Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / information on ingredients							
Chemical Name	CAS#	%	EINECS				
Water Methanol Non-hazardous proprietary ingredients	7732-18-5 67-56-1 Undisclosed	78.0% 20.0% 2.0%	231-791-2 200-659-6 Undisclosed				

#### Section 4 First aid measures

INGESTION: MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: VAPOR HARMFUL. HARMFUL IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical

EYE CONTACT: CAUSES EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: HARMFUL IN CONTACT WITH SKIN. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

#### Section 5 Fire fighting measures

Suitable Extinguishing Media: Carbon dioxide, dry chemical, dry sand, alcohol foam.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Fires involving a small amount of combustibles may be smothered by dry chemical. Vapors formed from this product are heavier than air and may travel along the ground to a distant source of ignition and flash back instanty. Closed containers exposed to heat may explode. Burns with a clear, almost invisible flame. Contact with strong oxidizers may cause fire.

## Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Remove all sources of ignition. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage Page E2 of E2

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8	Exposure controls / personal protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
	Methanol	TWA: 262 mg/m <sup>3</sup> / STEL: 328 mg/m <sup>3</sup>	TWA: 260 mg/m <sup>3</sup>	TWA: 260 mg/m <sup>3</sup> / STEL: 325 mg/m <sup>3</sup>			

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical and chemical properties

Appearance: Clear, colorless liquid.

Odor: Pungent odor.

Odor threshold: Data not available.

**pH:** Data not available.

Melting / Freezing point: -98°C (-144°F)\* Boiling point: 82°C (179.6°F)

Flash point: 43°C (109.4°F)

Evaporation rate ( Butyl acetate = 1): 4.6\* Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: 7.3% / 36%\* Vapor pressure (mm Hg): 96 mm @ 20°C\*

Vapor density (Air = 1): 1.11\* Relative density (Specific gravity): 0.79\*

Solubility(ies): Complete in water.

Partition coefficient: (n-octanol / water): Low Pow: -.82\*

Auto-ignition temperature: 463°C (867°F)\*
Decomposition temperature: Data not available.
Viscosity: Data not available.

Molecular formula: Mixture
Molecular weight: Mixture

\*Méthanol

## Section 10 Stability and reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur. Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition.

Incompatible materials: Strong oxidizing agents, strong acids, zinc, aluminum and magnesium, reducers, alkalies.

Hazardous decomposition products: Oxides of carbon and formaldehyde.

## Section 11 Toxicological information

Acute toxicity: Methanol: Oral-rat LD50: 5,628 mg/kg; Inhalation-rat LC50: 64,000 mg/kg/4hours; Skin-rabbit LD50: 15,800 mg/kg

Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

CA Prop 65: A WARNING! : This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm.

Reproductive toxicity: Data not available

STOT-single exposure: The substance or mixture is classified as specific target organ toxicant, single exposure, category 1 with narcotic effects.

**STOT-repeated exposure:** Data not available **Aspiration hazard:** Data not available

Potential health effects:

Inhalation: Inhalation of this material may cause irritation of the respiratory tract, nausea, shortness of breath and headache.

Ingestion: Ingestion may cause headache, dizziness, weakness, euphoria, drowsiness, shortness of breath, vomiting and incoordination. Can also cause blindness and death.

Cannot be made nonpoisonous.

Skin: Contact with skin can cause moderate irritation, defatting, cracking and dermatitis. Skin absorption may contribute to overall exposure.

Eyes: Contact with eyes can cause severe irritation, even corneal burns. High concentrations of vapors may cause irritation.

Signs and symptoms of exposure: See Potential health effects above.

Additional information: RTECS #: Methanol: PC1400000

## Section 12 Ecological information

Toxicity to fish: Methanol: Lepomis macrochirus (fish, fresh water), LC50 = 15,400 mg/l/96 hours

Toxicity to daphnia and other aquatic invertebrates: Methanol: Daphnia magna, EC50 = >10,000 mg/l/48 hours

Toxicity to algae: No data available

Persistence and degradability: Readily biodegradable Bioaccumulative potential: Not expected to bioaccumulate

Mobility in soil: No data available PBT and vPvB assessment: No data available Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport information

UN/NA number: UN1230 Shipping name: Methanol solution

Hazard class: Domestic: 3 International: 3, (6.1) Packing group: II Reportable Quantity: Yes Marine pollutant: No

Exceptions: Limited quantity equal to or less than 1 L 2020 ERG Guide # 131

## Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Methanol	Listed	5,000 lbs. (2270 kg)	U154	Listed	Not listed	⚠ WARNING -Cancer - www.P65Warnings.ca.gov.

## Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information 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 of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Form 06/2015 Revision Date: November 24, 2020 Supercedes: July 3, 2018

Section 1 Identification Page E1 of E2

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Product GREEN PLANT PIGMENT

Section 2 Hazards identification

Chlorophyll Concentrate

Signal word: DANGER

Pictograms: GHS02 / GHS06 / GHS08

Target organs: Central nervous system, Liver, Kidneys, Heart



Synonyms





### GHS Classification:

Flammable liquid (Category 3)
Acute toxicity, oral (Category 3)
Acute toxicity, dermal (Category 3)
Acute toxicity, inhalation (Category 3)
STOT-SE (Category 1)

## GHS Label information: Hazard statement:

H226: Flammable liquid and vapour.

H301: Toxic if swallowed.

H311: Toxic in contact with skin.

H331: Toxic if inhaled.

H370: Causes damage to organs.

## Precautionary statement:

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking

P233: Keep container tightly closed.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P260: Do not breathe mist/vapours/spray.

P264: Wash hands thoroughly after handling. P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P330: Rinse mouth.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water/shower. P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P308+P312: IF exposed or concerned: Call a POISON CENTER or doctor if you feel unwell.

P370+P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

## Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / information on ingredients							
Chemical Name		CAS#	%	EINECS			
Deionized water		7732-18-5	74.5%	231-791-2			
Methanol		67-56-1	12.0%	200-659-6			
Chlorophyllin		97659-67-1	6.0%	307-473-5			
Orange G (C.I. No.	. 16230)	1936-15-8	4.0%	217-705-6			
Alizarin yellow R, s	odium salt	1718-34-9	2.0%	217-002-4			
FD&C Yellow #5 (C	C.I. No. 19140)	1934-21-0	1.5%	217-699-5			

## Section 4 First aid measures

**INGESTION:** MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: VAPOR HARMFUL. HARMFUL IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: HARMFUL IN CONTACT WITH SKIN. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5 Fire fighting measures

Suitable Extinguishing Media: Carbon dioxide, dry chemical, dry sand, alcohol foam.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Fires involving a small amount of combustibles may be smothered by dry chemical. Vapors formed from this product are heavier than air and may travel along the ground to a distant source of ignition and flash back instanty. Closed containers exposed to heat may explode. Burns with a clear, almost invisible flame. Contact with strong oxidizers may cause fire.

## Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Remove all sources of ignition. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage Page E2 of E2

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8	Exposure controls / personal protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
	Methanol	TWA: 262 mg/m <sup>3</sup> / STEL: 328 mg/m <sup>3</sup>	TWA: 260 mg/m <sup>3</sup>	TWA: 260 mg/m <sup>3</sup> / STEL: 325 mg/m <sup>3</sup>			

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

## Section 9 Physical and chemical properties

**Appearance:** Liquid. Dark green. **Odor:** Pungent odor.

Odor threshold: Data not available

pH: Data not available.

Melting / Freezing point: Approximately -9°C (15.8°F)

Boiling point: Approximately 89°C (192°F)

Flash point: Approximately 48°C (118°F)

Evaporation rate ( = 1): Data not available Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): Data not available

Vapor density (Air = 1): Data not available
Relative density (Specific gravity): Data not available

Solubility(ies): Complete in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available.

Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture

## Section 10 Stability and reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur. Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition.

Incompatible materials: Strong oxidizing agents, strong acids, zinc, aluminum and magnesium, reducers, alkalies. Hazardous decomposition products: Oxides of carbon and formaldehyde, oxides of sodium, nitrogen and sulfur.

## Section 11 Toxicological information

Acute toxicity: Methanol: Oral-rat LD50: 5,628 mg/kg; Inhalation-rat LC50: 64,000 mg/kg/4hours; Skin-rabbit LD50: 15,800 mg/kg

Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

CA Prop 65: 🕰 WARNING! : This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm.

Reproductive toxicity: Data not available

STOT-single exposure: The substance or mixture is classified as specific target organ toxicant, single exposure, category 1 with narcotic effects.

**STOT-repeated exposure:** Data not available **Aspiration hazard:** Data not available

Potential health effects:

Inhalation: Inhalation of this material may cause irritation of the respiratory tract, nausea, shortness of breath and headache.

Ingestion: Ingestion may cause headache, dizziness, weakness, euphoria, drowsiness, shortness of breath, vomiting and incoordination. Can also cause blindness and death. Cannot be made nonpoisonous.

Skin: Contact with skin can cause moderate irritation, defatting, cracking and dermatitis. Skin absorption may contribute to overall exposure.

Eyes: Contact with eyes can cause severe irritation, even corneal burns. High concentrations of vapors may cause irritation.

Signs and symptoms of exposure: See Potential health effects above.

Additional information: RTECS #: Methanol: PC1400000

## Section 12 Ecological information

Toxicity to fish: Methanol: Lepomis macrochirus (fish, fresh water), LC50 = 15,400 mg/l/96 hours

 $\textbf{Toxicity to daphnia and other aquatic invertebrates: Methanol:} \ \ \text{Daphnia magna, EC50} = > 10,000 \ \text{mg/l/48 hours}$ 

Toxicity to algae: No data available

Persistence and degradability: Readily biodegradable Bioaccumulative potential: Not expected to bioaccumulate

Mobility in soil: No data available PBT and vPvB assessment: No data available Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## Section 13 Disposal considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

## Section 14 Transport information

UN/NA number: UN1230 Shipping name: Methanol solution

Hazard class: Domestic: 3 International: 3, (6.1) Packing group: II Reportable Quantity: Yes Marine pollutant: No

Exceptions: Limited quantity equal to or less than 1 L 2020 ERG Guide # 131

## Section 15 Regulatory information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Methanol	Listed	5,000 lbs. (2270 kg)	U154	Listed	Not listed	MARNING - Reproductive Harm - www.P65Warnings.ca.gov.

## Section 16 Other information

The information contained herein is furnished without warranty of any kind. Employers should use this information 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 of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Form 06/2015 Revision Date: November 24, 2020 Supercedes: June 25, 2018