SAFETY DATA SHEET



1. Identification

Product identifier Prop Solv No 3, 200 Proof

Other means of identification

Synonyms Denatured Ethanol Anhydrous
Recommended use General purpose solvent.

Recommended restrictions Use in accordance with manufacturer's recommendations.

Manufacturer/Importer/Supplier/Distributor information

Company Name Greenfield Global USA Inc.

Address 1101 Isaac Shelby Drive
Shelbyville, KY 40065

USA

 Telephone
 502.232.7600

 Fax
 502.633.6100

Company Name Greenfield Global USA Inc.

Address 58 Vale Road

Brookfield, CT 06804

USA

Telephone 203.740.3471 **Fax** 203.740.3481

Emergency phone number

USA CHEMTREC: 1.800.424.9300 (CCN 17213)
International CHEMTREC: +1.703.527.3887 (CCN 17213)

2. Hazard(s) identification

Physical hazardsFlammable liquidsCategory 2Health hazardsSerious eye damage/eye irritationCategory 2

Carcinogenicity Category 2
Reproductive toxicity Category 2

Specific target organ toxicity, single exposure Category 1 (central nervous system, optic

nerve)

Environmental hazards Hazardous to the aquatic environment, acute

hazard

e Category 3

Hazardous to the aquatic environment,

long-term hazard

Category 3

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. Causes serious eye irritation. Suspected of causing cancer.

Suspected of damaging fertility or the unborn child. Causes damage to organs (central nervous

system, optic nerve). Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist/vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear

protective gloves/protective clothing/eye protection/face protection.

Response If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media to

extinguish.

Store in a well-ventilated place. Keep cool. Store locked up. Storage

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Ethyl alcohol	64-17-5	91.58
Methanol	67-56-1	3.66
2-Pentanone, 4-methyl-	108-10-1	1.88
Ethyl acetate	141-78-6	0.96
Heptane	142-82-5	0.96
Toluene	108-88-3	0.96

Composition comments

All concentrations are in percent by weight unless otherwise indicated.

4. First-aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical

attention if irritation develops and persists.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other

proper respiratory medical device.

Most important symptoms/effects, acute and

delayed

Narcosis. Headache. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.

Methanol: Human exposure to methanol may result in illness, systemic poisoning, blindness, optic nerve damage and perhaps death, after being ingested, absorbed through the skin or inhaled. Death due to cardiac or respiratory failure has been reported in some cases from consumption of as little as 30 ml.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information

Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

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5. Fire-fighting measures

Suitable extinguishing media
Unsuitable extinguishing
media

Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. Combustion products may include: carbon oxides.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Specific methods

General fire hazards

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool.

Use standard firefighting procedures and consider the hazards of other involved materials.

Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. The product is completely soluble in water. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist/vapors. Avoid contact with eyes. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)				
Components	Туре	Value		
2-Pentanone, 4-methyl- (CAS 108-10-1)	PEL	410 mg/m3		
		100 ppm		

US. OSHA Table Z-1 Limits for Air Con Components	taminants (29 CFR 1910.1000) Type	Value
Ethyl alcohol (CAS 64-17-5)	PEL	1900 mg/m3
		1000 ppm
Heptane (CAS 142-82-5)	PEL	2000 mg/m3
		500 ppm
Methanol (CAS 67-56-1)	PEL	260 mg/m3
		200 ppm
US. OSHA Table Z-2 (29 CFR 1910.1000		
Components	Туре	Value
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm
US. ACGIH Threshold Limit Values		
Components	Туре	Value
2-Pentanone, 4-methyl- (CAS 108-10-1)	STEL	75 ppm
	TWA	20 ppm
Ethyl alcohol (CAS 64-17-5)	STEL	1000 ppm
Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm
Toluene (CAS 108-88-3)	TWA	20 ppm
(• •
US. NIOSH: Pocket Guide to Chemical		
		Value
US. NIOSH: Pocket Guide to Chemical	Hazards	Value 300 mg/m3
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl-	Hazards Type STEL	Value 300 mg/m3 75 ppm
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl-	Hazards Type	Value 300 mg/m3 75 ppm 205 mg/m3
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl- (CAS 108-10-1)	Hazards Type STEL TWA	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl-	Hazards Type STEL	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl- (CAS 108-10-1) Ethyl alcohol (CAS 64-17-5)	Hazards Type STEL TWA TWA	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl- (CAS 108-10-1)	Hazards Type STEL TWA	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl- (CAS 108-10-1) Ethyl alcohol (CAS 64-17-5)	Hazards Type STEL TWA TWA Ceiling	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3 440 ppm
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl- (CAS 108-10-1) Ethyl alcohol (CAS 64-17-5)	Hazards Type STEL TWA TWA	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3 440 ppm 350 mg/m3
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl- (CAS 108-10-1) Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5)	Hazards Type STEL TWA TWA Ceiling TWA	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3 440 ppm 350 mg/m3 85 ppm
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl- (CAS 108-10-1) Ethyl alcohol (CAS 64-17-5)	Hazards Type STEL TWA TWA Ceiling	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3 440 ppm 350 mg/m3 85 ppm 325 mg/m3
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl- (CAS 108-10-1) Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5)	Hazards Type STEL TWA TWA Ceiling TWA STEL	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3 440 ppm 350 mg/m3 85 ppm 325 mg/m3 250 ppm
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl- (CAS 108-10-1) Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5)	Hazards Type STEL TWA TWA Ceiling TWA	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3 440 ppm 350 mg/m3 85 ppm 325 mg/m3 250 ppm 260 mg/m3
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl-(CAS 108-10-1) Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5) Methanol (CAS 67-56-1)	Hazards Type STEL TWA TWA Ceiling TWA STEL TWA	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3 440 ppm 350 mg/m3 85 ppm 325 mg/m3 250 ppm 260 mg/m3 200 ppm
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl- (CAS 108-10-1) Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5)	Hazards Type STEL TWA TWA Ceiling TWA STEL	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3 440 ppm 350 mg/m3 85 ppm 325 mg/m3 250 ppm 260 mg/m3 200 ppm 560 mg/m3
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl-(CAS 108-10-1) Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5) Methanol (CAS 67-56-1)	Hazards Type STEL TWA TWA Ceiling TWA STEL TWA STEL TWA	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3 440 ppm 350 mg/m3 85 ppm 325 mg/m3 250 ppm 260 mg/m3 200 ppm 560 mg/m3 150 ppm
US. NIOSH: Pocket Guide to Chemical Components 2-Pentanone, 4-methyl-(CAS 108-10-1) Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5) Methanol (CAS 67-56-1)	Hazards Type STEL TWA TWA Ceiling TWA STEL TWA	Value 300 mg/m3 75 ppm 205 mg/m3 50 ppm 1900 mg/m3 1000 ppm 1800 mg/m3 440 ppm 350 mg/m3 85 ppm 325 mg/m3 250 ppm 260 mg/m3 200 ppm 560 mg/m3

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Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time	
2-Pentanone, 4-methyl- (CAS 108-10-1)	1 mg/l	Methyl isobutyl ketone	Urine	*	
Methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*	
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*	
	0.03 mg/l	Toluene	Urine	*	
	0.02 mg/l	Toluene	Blood	*	

^{* -} For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Toluene (CAS 108-88-3)

Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Methanol (CAS 67-56-1)

Toluene (CAS 108-88-3)

Skin designation applies.
Skin designation applies.

US - Tennessee OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Appropriate engineering

controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical goggles are recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Skin protection

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure

limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Chemical respirator with

organic vapor cartridge.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.
Form Liquid.
Color Colorless.

Odor Not available.

Odor threshold Not available.

PH Not available.

Melting point/freezing point -173.2 °F (-114 °C)

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176 °F (80 °C) Initial boiling point and boiling

range

55.4 - 60.8 °F (13.0 - 16.0 °C) Closed Cup Flash point

Evaporation rate Expected to be rapid Not applicable. Flammability (solid, gas)

Upper/lower flammability or explosive limits

Flammability limit - lower

3.3 % v/v (100% Ethyl alcohol)

Flammability limit - upper

19 % v/v (100% Ethyl alcohol)

(%)

Vapor pressure 44.6 mm Hg Vapor density 1.6 (air = 1)Not available. Relative density

Solubility(ies)

Solubility (water) Completely soluble.

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

685.4 °F (363 °C) (Ethyl Alcohol)

Decomposition temperature Not available. Not available. Viscosity

Other information

Explosive properties Not explosive. Oxidizing properties Not oxidizing.

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid

temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Causes mild skin irritation. May be absorbed through the skin. Skin contact

Eye contact Causes serious eye irritation. Ingestion May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Narcosis. Headache. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.

Methanol: Human exposure to methanol may result in illness, systemic poisoning, blindness, optic nerve damage and perhaps death, after being ingested, absorbed through the skin or inhaled. Death due to cardiac or respiratory failure has been reported in some cases from consumption of as little as 30 ml.

Information on toxicological effects

Acute toxicity May be harmful if swallowed.

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2-Pentanone, 4-methyl- (CAS 108-10-1)

Acute Dermal

LD50 Rabbit > 16000 mg/kg

Oral

LD50 Rat 3200 mg/kg

Ethyl alcohol (CAS 64-17-5)

<u>Acute</u>

Inhalation Vapor

LC50 Rat 117 - 125 mg/l, 4 Hours

Oral

LD50 Rat 10470 mg/kg

Heptane (CAS 142-82-5)

Acute

Inhalation

Vapor

LC50 Rat > 29.3 mg/l, 4 Hours

Oral

LD50 Rat 15000 mg/kg

Toluene (CAS 108-88-3)

Acute

Dermal

LD50 Rabbit 12200 mg/kg

Inhalation

Vapor

LC50 Rat 28.1 mg/l, 4 Hours

Skin corrosion/irritation Causes mild skin irritation.

Serious eye damage/eye Causes serious eye irritation.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Pentanone, 4-methyl- (CAS 108-10-1)

2B Possibly carcinogenic to humans.

Tolyana (CAS 108-88-3)

Toluene (CAS 108-88-3) 3 Not classifiable as to carcinogenicity to humans.

NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Reproductive toxicity Suspected of damaging fertility or the unborn child.

Specific target organ toxicity -

single exposure

Causes damage to organs (central nervous system, optic nerve).

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity	Harmful to aquatic life with long lasting effects.		
Components	Species	Test Results	

Components		Species	Test Results	
2-Pentanone, 4-methyl- ((CAS 108-10-1)			
Aquatic				
Acute				
Crustacea	EC50	Water flea (Daphnia magna)	3682 mg/l, 24 hours	
Fish	LC50	Pimephales promelas	505 mg/l, 96 Hours	
Chronic	=			
Crustacea	EC50	Daphnia magna	78 mg/l, 21 days	
Fish	NOEC	Pimephales promelas	57 mg/l, 31 days	
Ethyl alcohol (CAS 64-17	' -5)			
Aquatic	E040	Frankrichen alera	44.5	
Algae	EC10	Freshwater algae	11.5 mg/l, 72 hours	
	EC50	Freshwater algae	275 mg/l, 72 hours	
		Marine water algae	1900 mg/l	
	NOEC	Marine water algae	1580 mg/l	
Fish	LC50	Freshwater fish	11200 mg/l, 24 hours	
	NOEC	Freshwater fish	250 mg/l	
Invertebrate	EC50	Freshwater invertebrate	5012 mg/l, 48 hours	
		Marine water invertebrate	857 mg/l, 48 hours	
	NOEC	Freshwater invertebrate	9.6 mg/l, 10 days	
		Marine water invertebrate	79 mg/l, 96 hours	
Other	EC50	Lemna minor	4432 mg/l, 7 days	
	NOEC	Lemna minor	280 mg/l, 7 days	
Other				
Micro-organisms	LC50	Micro-organisms	5800 mg/l, 4 hours	
Terrestrial				
Plant	EC50	Terrestrial plant	633 mg/kg dw	
Methanol (CAS 67-56-1)				
Aquatic				
Acute	5050	5	40000 # 40 !	
Crustacea	EC50	Daphnia magna	> 10000 mg/l, 48 hours	
Fish	LC50	Bluegill (Lepomis macrochirus)	15400 mg/l, 96 hours	
Toluene (CAS 108-88-3)				
Aquatic				
<i>Acute</i> Crustacea	EC50	Daphnia magna	11.5 mg/l, 48 hours	
Fish	LC50	Oncorhynchus kisutch	5.5 mg/l, 96 hours	
Chronic	2000	Oncomynonus Risulon	5.5 mg/i, 50 mours	
Crustacea	NOEC	Ceriodaphnia dubia	0.74 mg/l, 7 days	
Fish	NOEC	Oncorhynchus kisutch	1.4 mg/l, 40 days	
		•		
sistence and degradabil	ity ino data is	s available on the degradability of this pro	duct.	

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-Pentanone, 4-methyl- (CAS 108-10-1) 1.31 Heptane (CAS 142-82-5) 4.66 Methanol (CAS 67-56-1) -0.772.73 Toluene (CAS 108-88-3)

Mobility in soil The product is completely soluble in water.

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the **Disposal instructions**

material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in

accordance with local/regional/national/international regulations.

Dispose in accordance with all applicable regulations. Local disposal regulations

The waste code should be assigned in discussion between the user, the producer and the waste Hazardous waste code

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

DOT

UN1987 **UN number**

UN proper shipping name Transport hazard class(es) Alcohols, n.o.s. (Ethyl alcohol, Methanol)

Class 3 Subsidiary risk 3 Label(s) Ш Packing group

Environmental hazards

Marine pollutant No.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

172, IB2, T7, TP1, TP8, TP28 Special provisions

Packaging exceptions 4b, 150 202 Packaging non bulk 242 Packaging bulk

IATA

UN number UN1987

UN proper shipping name Alcohols, n.o.s. (Ethyl alcohol, Methanol)

Transport hazard class(es)

Class 3 Subsidiary risk Packing group Ш **Environmental hazards** No. 3L **ERG Code**

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN1987

UN proper shipping name

ALCOHOLS, N.O.S. (Ethyl alcohol, Methanol)

Transport hazard class(es)

Class 3 Subsidiary risk Ш Packing group **Environmental hazards**

Marine pollutant No. **EmS** F-E, S-D

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Not established.

Transport in bulk according to

Annex II of MARPOL 73/78 and

the IBC Code

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15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Pentanone, 4-methyl- (CAS 108-10-1) Listed. Heptane (CAS 142-82-5) Listed. Methanol (CAS 67-56-1) Listed. Toluene (CAS 108-88-3) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Toxic Substances Control All components of the mixture on the TSCA 8(b) inventory are designated "active".

Yes

Act (TSCA)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed

SARA 311/312 Hazardous

Classified hazard

chemical

categories

Flammable (gases, aerosols, liquids, or solids)

Serious eye damage or eye irritation

Carcinogenicity Reproductive toxicity

Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.	
2-Pentanone, 4-methyl-	108-10-1	1.88	
Methanol	67-56-1	3.66	

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

2-Pentanone, 4-methyl- (CAS 108-10-1)

Methanol (CAS 67-56-1) Toluene (CAS 108-88-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Contains component(s) regulated under the Safe Drinking Water Act.

(SDWA)

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and **Chemical Code Number**

2-Pentanone, 4-methyl- (CAS 108-10-1) 6715 Toluene (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

2-Pentanone, 4-methyl- (CAS 108-10-1) 35 %WV Toluene (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

2-Pentanone, 4-methyl- (CAS 108-10-1) 6715 Toluene (CAS 108-88-3) 594

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

2-Pentanone, 4-methyl- (CAS 108-10-1) Low priority Ethyl alcohol (CAS 64-17-5) Low priority

US state regulations

US. Massachusetts RTK - Substance List

2-Pentanone, 4-methyl- (CAS 108-10-1)

Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5) Methanol (CAS 67-56-1)

Prop Solv No 3, 200 Proof 10 / 12

945739 Version #: 01 Revision date: -Issue date: 16-April-2019 Toluene (CAS 108-88-3)

US. New Jersey Worker and Community Right-to-Know Act

2-Pentanone, 4-methyl- (CAS 108-10-1)

Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5) Methanol (CAS 67-56-1) Toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

2-Pentanone, 4-methyl- (CAS 108-10-1)

Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5) Methanol (CAS 67-56-1) Toluene (CAS 108-88-3)

US. Rhode Island RTK

2-Pentanone, 4-methyl- (CAS 108-10-1)

Ethyl alcohol (CAS 64-17-5) Heptane (CAS 142-82-5) Methanol (CAS 67-56-1) Toluene (CAS 108-88-3)

California Proposition 65



WARNING: This product can expose you to chemicals including 2-Pentanone, 4-methyl-, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more

information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

2-Pentanone, 4-methyl- (CAS 108-10-1) Listed: November 4, 2011

California Proposition 65 - CRT: Listed date/Developmental toxin

2-Pentanone, 4-methyl- (CAS 108-10-1) Listed: March 28, 2014 Methanol (CAS 67-56-1) Listed: March 16, 2012 Toluene (CAS 108-88-3) Listed: January 1, 1991

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

2-Pentanone, 4-methyl- (CAS 108-10-1)

Heptane (CAS 142-82-5) Methanol (CAS 67-56-1) Toluene (CAS 108-88-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
*A "Yes" indicates this product co	omplies with the inventory requirements administered by the governing country(s).	

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 16-April-2019

Revision date Version # 01

Prop Solv No 3, 200 Proof SDS US

945739 Version #: 01 Revision date: -Issue date: 16-April-2019 11 / 12

HMIS® ratings

Health: 4* Flammability: 3 Physical hazard: 0

Disclaimer

This product is subject to Greenfield Global USA Inc.'s terms and conditions, which can be found at http://www.greenfield.com/tc-po-us/. Greenfield cannot anticipate all conditions under which this information and this product, or the products of other manufacturers in combination with this product, may be used. The user is responsible for the proper and safe use, handling, storage and disposal of the product, and assumes liability for any loss, injury, damage or expense arising from any failure to do so. The data in this sheet is based on information and experience available at the time of writing.