SAFETY DATA SHEET



1. Identification

Product identifier SDA 3C 140 Proof

Other means of identification None.

Recommended use General purpose solvent.

Recommended restrictionsUse 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

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. Causes serious eye irritation.

Precautionary statement

Prevention 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. Wash thoroughly after handling. Wear protective gloves/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 eye irritation persists: Get medical advice/attention. In case of fire:

Use appropriate media to extinguish.

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

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

Hazard(s) not otherwise None known.

classified (HNOC)

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3. Composition/information on ingredients

Mixtures

| Chemical name | CAS number | % |
|---------------|------------|------|
| Ethyl alcohol | 64-17-5 | 66.7 |
| Propan-2-ol | 67-63-0 | 3.3 |
| Water | 7732-18-5 | 30 |

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

Rinse mouth. Get medical attention if symptoms occur.

Most important

symptoms/effects, acute and delayed

Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.

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. 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.

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

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.

Specific methods General fire hazards 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 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.

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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.

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.

remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

7. Handling and storage

Precautions for safe handling

Avoid discharge into drains, water courses or onto the ground.

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. 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. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

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 Components | Contaminants (29 CFR 1910.1000) Type | Value | |
|--|--------------------------------------|------------|--|
| Ethyl alcohol (CAS 64-17-5) | PEL | 1900 mg/m3 | |
| | | 1000 ppm | |
| Propan-2-ol (CAS 67-63-0) | PEL | 980 mg/m3 | |
| | | 400 ppm | |
| US. ACGIH Threshold Limit Values | 5 | | |
| Components | Туре | Value | |
| Ethyl alcohol (CAS 64-17-5) | STEL | 1000 ppm | |
| Propan-2-ol (CAS 67-63-0) | STEL | 400 ppm | |
| | TWA | 200 ppm | |
| US. NIOSH: Pocket Guide to Chem | nical Hazards | | |
| Components | Туре | Value | |
| Ethyl alcohol (CAS 64-17-5) | TWA | 1900 mg/m3 | |
| | | 1000 ppm | |
| Propan-2-ol (CAS 67-63-0) | STEL | 1225 mg/m3 | |
| | | 500 ppm | |
| | TWA | 980 mg/m3 | |
| | | 400 ppm | |

Biological limit values

| ACGIH Biological Exposure Indices | | | | |
|-----------------------------------|----------------|-------------|----------|---------------|
| Components | Value | Determinant | Specimen | Sampling Time |
| Propan-2-ol (CAS 67 | -63-0) 40 mg/l | Acetone | Urine | * |

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

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.

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

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 Clear liquid; invisible vapor.

Odor Not available.

Odor threshold Not available.

PH Not available.

Melting point/freezing point -148 °F (-100 °C)

Initial boiling point and boiling

176 °F (80 °C)

range

Flash point 69.8 °F (21.0 °C) Closed Cup

Evaporation rate 3 (butyl acetate = 1) **Flammability (solid, gas)** Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

3.3 % v/v (Ethyl alcohol)

(%)

Flammability limit - upper

19 % v/v (Ethyl alcohol)

(%)

Vapor pressure 5.52 kPa (Ethyl alcohol) (68 °F (20 °C))

Vapor density 1.6 (air = 1)

Relative density 6.86 lb/gal (60.01 °F (15.56 °C))

Solubility(ies)

Solubility (water) Completely soluble.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature 685.4 °F (363 °C) (Ethyl alcohol)

Decomposition temperature Not available. **Viscosity** Not available.

Other information

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

10. Stability and reactivity

ReactivityThe 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.

Skin contact Prolonged skin contact may cause temporary irritation.

Eye contact Causes serious eye irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and

blurred vision. Coughing.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components Species Test Results

Ethyl alcohol (CAS 64-17-5)

Acute

Inhalation

Vapor

LC50 Rat 117 - 125 mg/l, 4 Hours

Oral

LD50 Rat 10470 mg/kg

Propan-2-ol (CAS 67-63-0)

Acute

Dermal

LD50 Rabbit 12870 mg/kg

Inhalation

Vapor

LC50 Rat 72.6 mg/l, 4 hours

Oral

LD50 Rat 4710 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye

irritation

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

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

Causes serious eye irritation.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Propan-2-ol (CAS 67-63-0) 3 Not cl

NTP Report on Carcinogens

Not listed

3 Not classifiable as to carcinogenicity to humans.

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components | | Species | Test Results |
|--------------------------|------|---------------------------|------------------------|
| Ethyl alcohol (CAS 64-17 | '-5) | | |
| Aquatic | | | |
| 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 |
| Propan-2-ol (CAS 67-63- | 0) | | |
| Aquatic | | | |
| Acute | | | |
| Crustacea | LC50 | Daphnia magna | > 10000 mg/l, 24 hours |
| Fish | LC50 | Pimephales promelas | 9640 mg/l, 96 hours |
| Chronic | | | |
| Crustacea | EC50 | Daphnia magna | > 100 mg/l, 21 days |
| | NOEC | Daphnia magna | 141 mg/l, 16 days |
| | | | 30 mg/l, 21 days |

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Propan-2-ol (CAS 67-63-0) 0.05

Mobility in soil The product is completely soluble in water.

Other adverse effects 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

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

> material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Dispose of contents/container in accordance with local/regional/national/international

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

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

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).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is 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** Alcohols, n.o.s.

Transport hazard class(es)

3 Class Subsidiary risk 3 Label(s) **Packing group** Ш **Environmental hazards**

> Marine pollutant No.

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

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

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

IATA

UN1987 UN number **UN** proper shipping name Alcohols, n.o.s.

Transport hazard class(es)

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

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.

Transport hazard class(es)

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

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

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

Transport in bulk according to Annex II of MARPOL 73/78 and

the IBC Code

15. Regulatory information

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

Standard, 29 CFR 1910.1200.

Not established.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Propan-2-ol (CAS 67-63-0) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Toxic Substances Control Act (TSCA)

All components of the mixture on the TSCA 8(b) inventory are designated

"active".

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Yes

chemical

Classified hazard

Flammable (gases, aerosols, liquids, or solids)

categories Serious eye damage or eye irritation

SARA 313 (TRI reporting)

 Chemical name
 CAS number
 % by wt.

 Propan-2-ol
 67-63-0
 3.3

Other federal regulations

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

Not regulated.

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

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

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

Ethyl alcohol (CAS 64-17-5)

Propan-2-ol (CAS 67-63-0)

Low priority

Low priority

US state regulations

US. Massachusetts RTK - Substance List

Ethyl alcohol (CAS 64-17-5) Propan-2-ol (CAS 67-63-0)

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

Ethyl alcohol (CAS 64-17-5) Propan-2-ol (CAS 67-63-0)

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

Ethyl alcohol (CAS 64-17-5) Propan-2-ol (CAS 67-63-0)

US. Rhode Island RTK

Ethyl alcohol (CAS 64-17-5) Propan-2-ol (CAS 67-63-0)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

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

Propan-2-ol (CAS 67-63-0)

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 |

Country(s) or region Inventory name On inventory (yes/no)* Europe European Inventory of Existing Commercial Chemical Substances (EINECS) European List of Notified Chemical Substances (ELINCS) No Europe 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 Yes (PICCS)

Taiwan Taiwan Chemical Substance Inventory (TCSI)

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

Yes

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

Issue date 10-September-2019

Revision date -Version # 01

HMIS® ratings
Health: 2
Flammability: 3

Physical hazard: 0

DisclaimerThis 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.

^{*}A "Yes" indicates this product complies 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).