



1. Identification

maommouton			
Product identifier	SDA 38B-77 200 Proof		
Other means of identification	None.		
Recommended use	General purpose solvent.		
Recommended restrictions	Use in accordance with manufacturer's rec	commendations.	
Manufacturer/Importer/Supplier			
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 1721	3)	
International	CHEMTREC: +1.703.527.3887 (CCN 172	,	
2. Hazard(s) identification			
Physical hazards	Flammable liquids	Category 2	
Health hazards	Serious eye damage/eye irritation	Category 2	
	Sensitization, skin	Category 1	
OSHA defined hazards	Not classified.		
Label elements			
Signal word	Danger		
Hazard statement	Highly flammable liquid and vapor. Causes reaction.	s serious eye irritation. May cause an allergic skin	
Precautionary statement			
Prevention	closed. Ground/bond container and receivi electrical/ventilating/lighting equipment. Us measures against static discharge. Avoid b	hot surfaces No smoking. Keep container tightly ing equipment. Use explosion-proof se only non-sparking tools. Take precautionary oreathing mist/vapor. Wash thoroughly after handling. llowed out of the workplace. Wear protective gloves/eye	
Response		l contaminated clothing. Rinse skin with water/shower.	

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. 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 classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Ethyl alcohol	64-17-5	91.08 - 98.52
Menthol	89-78-1	0.44
Peppermint Oil	8006-90-4	0.52
Spearamint Oil	8008-79-5	0.52
Water	7732-18-5	0.00 - 7.44

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	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
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. May cause an allergic skin reaction. Dermatitis. Rash.
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. Wash contaminated clothing before reuse. Show this safety data sheet to the doctor in attendance.
5. Fire-fighting measures	

Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2). Suitable extinguishing media Unsuitable extinguishing Do not use water jet as an extinguisher, as this will spread the fire. media Specific hazards arising from 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 the chemical products may include: carbon oxides. Special protective equipment Self-contained breathing apparatus and full protective clothing must be worn in case of fire. and precautions for firefighters Fire fighting 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. equipment/instructions Use standard firefighting procedures and consider the hazards of other involved materials. Specific methods General fire hazards Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions,	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all
protective equipment and	ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate
emergency procedures	protective equipment and clothing during clean-up. Avoid breathing mist/vapor. Do not touch
0 7 1	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.	
	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.	
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.	
7. Handling and storage		
Precautions for safe handling	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, skin, and clothing. 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 Contaminants (29 CFR 1910.1000)

Components	Туре	Value
Ethyl alcohol (CAS 64-17-5)	PEL	1900 mg/m3
		1000 ppm
US. ACGIH Threshold Limit	Values	
Components	Туре	Value
Ethyl alcohol (CAS 64-17-5)	STEL	1000 ppm
US. NIOSH: Pocket Guide to	Chemical Hazards	
Components	Туре	Value
Ethyl alcohol (CAS 64-17-5)	TWA	1900 mg/m3
		1000 ppm
logical limit values	No biological exposure limits noted for the ingredient(s).	
propriate engineering trols	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.	
vidual protection measures,	such as personal protective equip	oment
Eve/face protection	Chemical googles are recommend	ed

Eye/face protection	Chemical goggies 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.

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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. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

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Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Clear liquid; invisible vapor.
Odor	Characteristic.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	-227.2173.2 °F (-144114 °C)
Initial boiling point and boiling range	172.9 °F (78.3 °C) at 760 mm Hg
Flash point	57.2 - 62.6 °F (14.0 - 17.0 °C) Closed Cup
Evaporation rate	3.3 (butyl acetate = 1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	3.3 % v/v (for 100% ethyl alcohol)
Flammability limit - upper (%)	19 % v/v (for 100% ethyl alcohol)
Vapor pressure	44.6 mm Hg (68 °F (20 °C))
Vapor density	1.6 (air = 1)
Relative density	6.62 lb/gal (60 °F (15.56 °C))
Solubility(ies)	
Solubility (water)	Completely soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	685.4 °F (363 °C) (for 100% ethyl alcohol)
Decomposition temperature	Not available.
Viscosity	Not available.
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 avoidKeep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid
temperatures exceeding the flash point. Contact with incompatible materials.Incompatible materialsStrong oxidizing agents.Hazardous decompositionNo hazardous decomposition products are known.

products

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.	
Skin contact	May cause an allergic skin reaction. Causes mild skin irritation.	
Eye contact	Causes serious eye irritation.	

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Symptoms related to the physical, chemical and toxicological characteristics

Ingestion

Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing. May cause an allergic skin reaction. Dermatitis. Rash.

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	Det			
LC50	Rat	117 - 125 mg/l, 4 Hours		
Oral LD50	Rat	10470 mg/kg		
		10470 mg/kg		
Skin corrosion/irritation	Causes mild skin irritation.			
Serious eye damage/eye irritation	Causes serious eye irritation.			
Respiratory or skin sensitizatio	n			
Respiratory sensitization	Not a respiratory sensitizer.	Not a respiratory sensitizer.		
Skin sensitization	May cause an allergic skin reaction.			
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			
Not listed.				
NTP Report on Carcinogen	S			
Not listed.	ed Substances (29 CFR 1910.1001-1053)			
Not regulated.	eu Substances (29 ch (1910.1001-1033)			
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.			
Specific target organ toxicity -	Not classified.			
single exposure				
Specific target organ toxicity - repeated exposure	Not classified.			
Aspiration hazard	Not an aspiration hazard.			
Chronic effects	Prolonged inhalation may be harmful.			
12. Ecological information	n			
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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

Components		Species	Test Results
		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
Terrestial			
Plant	EC50	Terrestrial plant	633 mg/kg dw
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulative potential	No data available for this product.		
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 consideration	ns		
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 regulations.		
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		accordance with local regulations. Empty containers or liners may retain some ues. This material and its container must be disposed of in a safe manner (see: ructions).	
Contaminated packaging		d containers may retain product residue, fo pty containers should be taken to an appro-	

14. Transport information

DOT

DOT	
UN number	UN1170
UN proper shipping name	Ethyl alcohol solution
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Environmental hazards	
Marine pollutant	No.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	24, IB2, T4, TP1
Packaging exceptions	4b, 150
Packaging non bulk	202
Packaging bulk	242
ΙΑΤΑ	
UN number	UN1170
UN proper shipping name	Ethyl alcohol solution
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
IMDG	
UN number	UN1170
UN proper shipping name	ETHYL ALCOHOL SOLUTION

Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
	• Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and	Not established.
the IBC Code	
15 Degulatory information	
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) Exp	ort Notification (40 CFR 707, Subpt. D)
Not regulated.	
	bstance List (40 CFR 302.4)
Not listed.	
SARA 304 Emergency re	elease notification
Not regulated.	
OSHA Specifically Regu	lated Substances (29 CFR 1910.1001-1053)
Not regulated.	
Toxic Substances Control Act (TSCA)	All components of the mixture on the TSCA 8(b) inventory are designated "active".
Superfund Amendments and Re	authorization Act of 1986 (SARA)
SARA 302 Extremely hazard	lous substance
Not listed.	
SARA 311/312 Hazardous chemical	Yes
Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Serious eye damage or eye irritation Respiratory or skin sensitization
SARA 313 (TRI reporting)	
Not regulated.	
Other federal regulations	
_	112 Hazardous Air Pollutants (HAPs) List
Not regulated.	
•	112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.	
Safe Drinking Water Act (SDWA)	Not regulated.
FEMA Priority Substance	es Respiratory Health and Safety in the Flavor Manufacturing Workplace
Ethyl alcohol (CAS 6	4-17-5) Low priority
US state regulations	
US. Massachusetts RTK - Su	ubstance List
Ethyl alcohol (CAS 64-17	-5)
US. New Jersey Worker and	Community Right-to-Know Act
Ethyl alcohol (CAS 64-17	
-	nd Community Right-to-Know Law
Ethyl alcohol (CAS 64-17	-5)
US. Rhode Island RTK	
Ethyl alcohol (CAS 64-17	-0)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (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.

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)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
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)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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).

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

Issue date	06-November-2018
Revision date	-
Version #	01
HMIS [®] ratings	Health: 2 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.