SAFETY DATA SHEET



1. Identification

Product identifier SDA 23A 190 Proof

Other means of identification None.

Recommended useGeneral purpose solvent.

Recommended restrictionsRefer to the alcohol control authority in which the product is to be used - Canada Revenue Agency

(Excise) in Canada, US Tax and Trade Bureau in the US, etc.

Manufacturer/Importer/Supplier/Distributor information

Company nameAddress
Greenfield Global Inc.
6985 Financial Drive

Missisauga, Ontario L5N 0G3

Canada

Telephone (905) 790-7500

Website http://www.greenfield.com
Emergency phone number CHEMTREC: 1-800-424-9300

2. Hazard identification

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

Label elements



Signal word Danger

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

Precautionary statement

Storage

Prevention Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wash thoroughly after handling. 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. 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 water fog, alcohol-resistant foam, dry chemical powder, carbon dioxide to extinguish.

Store in a well-ventilated place. Keep cool.

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

Supplemental information None.

Other hazards None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Ethanol		64-17-5	85.73
Acetone		67-64-1	7.03
Other components below re	eportable levels		7.24

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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.

Eve contact

Immediately flush eves 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. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

Specific hazards arising from the chemical

Special protective equipment and precautions for firefighters

equipment/instructions

Specific methods General fire hazards

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.

Vapours may form explosive mixtures with air. Vapours 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.

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

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 vapour.

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.

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.

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. Clean surface thoroughly to remove residual contamination.

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.

Environmental precautions

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. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

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

Occ

S. ACGIH Threshold Limit Valu	ies	
Components	Туре	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Canada, Alberta OELs (Occupat	ional Health & Safety Code, Sche	dule 1. Table 2)
Components	Туре	Value
Acetone (CAS 67-64-1)	STEL	1800 mg/m3
		750 ppm
	TWA	1200 mg/m3
		500 ppm
Ethanol (CAS 64-17-5)	TWA	1880 mg/m3
,		1000 ppm
Canada British Columbia OFLs	(Occupational Exposure Limite	for Chemical Substances, Occupational Health and
Safety Regulation 296/97, as am		or official oubstances, occupational freattif and
Components	Туре	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Canada, Manitoba OFI s (Reg. 2	17/2006, The Workplace Safety A	nd Health Act)
Components	Type	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Canada. Ontario OELs. (Control	of Exposure to Biological or Che	mical Agents)
Components	Туре	Value
Acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Canada Quehec OFI's (Ministry	of Lahor - Regulation respecting	g occupational health and safety)
Components	Type	Value
Acetone (CAS 67-64-1)	STEL	2380 mg/m3
,		1000 ppm
	TWA	1190 mg/m3
		500 ppm
Ethanol (CAS 64-17-5)	TWA	1880 mg/m3
		1000 ppm
		• •
Canada. Saskatchewan OELs (C Components	ccupational Health and Safety Re	egulations, 1996, Table 21) Value
Acetone (CAS 67-64-1)	15 minute	750 ppm
10010110 (O/10 01-0 1 -1)	8 hour	730 ррш 500 ррт
=thanal (CAS 64 17 5)		
Ethanol (CAS 64-17-5)	15 minute	1250 ppm

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Components Value Type

> 8 hour 1000 ppm

Biological limit values

ACGIH Biological	Exposure	Indices
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Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	25 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 Wear safety glasses with side shields (or goggles). Chemical goggles are recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Be aware that the liquid may penetrate the gloves.

Frequent change is advisable.

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.

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

Liquid. Physical state **Form** Liquid.

Colour Clear liquid; invisible vapour.

Odour Sweet, Alcoholic. Not available. Odour threshold Not available.

-144 - -100 °C (-227.2 - -148 °F) Melting point/freezing point 78.4 - 80 °C (173.12 - 176 °F) Initial boiling point and boiling

range

7 - 16 °C (44.6 - 60.8 °F) Closed cup Flash point

Evaporation rate Expected to be rapid. Flammability (solid, gas) Not applicable. Upper/lower flammability or explosive limits

Explosive limit - lower (%) 3.3 % v/v (100% Ethyl alcohol)

Explosive limit - upper

19 % v/v (100% Ethyl alcohol)

(%)

Vapour pressure 59.5 hPa (20 °C (68 °F)) Vapour density 1.59 - 1.6 (air=1.0) Relative density 0.785 - 0.789 g/cm3

Solubility(ies)

Solubility (water) Complete Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature 363 °C (685.4 °F) (100% Ethyl alcohol)

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

Other information

Explosive properties Not explosive. **Oxidising properties** Not oxidising.

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 Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the

flash point. Contact with incompatible materials.

Incompatible materials Acids. Strong oxidising 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 or repeated contact can result in defatting and drying of the skin which may result in

skin irritation and dermatitis (rash).

Eye contact Causes serious eye irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Skin sensitisation

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

blurred vision. Coughing.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results	
Acetone (CAS 67-64-1)			
<u>Acute</u>			
Dermal			
LD50	Rabbit	> 15700 mg/kg, 24 Hours	
Inhalation			
Vapour			
LC50	Rat	76 mg/l, 4 Hours	
Oral			
LD50	Rat	5800 mg/kg	
Ethanol (CAS 64-17-5)			
<u>Acute</u>			
Inhalation			
Vapour			
LC50	Rat	117 - 125 mg/l, 4 Hours	
Oral			
LD50	Rat	10470 mg/kg	
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.		
Serious eye damage/eye irritation	Causes serious eye irritation.		
Respiratory or skin sensitisatio	n		
Respiratory sensitisation	Not a respiratory sensitiser.		

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This product is not expected to cause skin sensitisation.

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

mutagenic or genotoxic.

Carcinogenicity

ACGIH Carcinogens

Acetone (CAS 67-64-1) A4 Not classifiable as a human carcinogen.

Ethanol (CAS 64-17-5) A3 Confirmed animal carcinogen with unknown relevance to

humans.

Canada - Manitoba OELs: carcinogenicity

Acetone (CAS 67-64-1) Not classifiable as a human carcinogen.

Ethanol (CAS 64-17-5) Confirmed animal carcinogen with unknown relevance to humans.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure **Aspiration hazard**

Not classified.

Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

The product is not classified as environmentally hazardous. However, this does not exclude the **Ecotoxicity**

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Acetone (CAS 67-64-1)			
Aquatic			
Acute			
Crustacea	LC50	Daphnia pulex	8800 mg/l, 48 Hours
Fish	LC50	Pimephales promelas	7163 mg/l, 96 Hours
Chronic			
Crustacea	NOEC	Daphnia magna	> 79 mg/l, 21 days
Ethanol (CAS 64-17-5)			
Aquatic			
<i>Acute</i> Algae	EC10	Freshwater algae	11.5 mg/l, 72 hours
7 ligac	EC50	Freshwater algae	275 mg/l, 72 hours
	L030	Marine water algae	1900 mg/l
Fish	1.050	Freshwater fish	•
	LC50		11200 mg/l, 24 hours
Invertebrate	EC50	Freshwater invertebrate	5012 mg/l, 48 hours
		Marine water invertebrate	857 mg/l, 48 hours
Other	EC50	Lemna minor	4432 mg/l, 7 days
Chronic			
Algae	NOEC	Marine water algae	1580 mg/l
Fish	NOEC	Freshwater fish	250 mg/l
Invertebrate	NOEC	Freshwater invertebrate	9.6 mg/l, 10 days
		Marine water invertebrate	79 mg/l, 96 hours
Other	NOEC	Lemna minor	280 mg/l, 7 days
Other			
Acute			
Micro-organisms	LC50	Micro-organisms	5800 mg/l, 4 hours
Terrestrial			
Acute			
Plant	EC50	Terrestrial plant	633 mg/kg dw
sistence and degradability	The produ	uct is expected to be biodegradable.	

Bioaccumulative potential The product is not expected to bioaccumulate.

Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1) -0.24

Expected to be mobile in soil. Mobility in soil

Other adverse effects No data available.

13. Disposal considerations

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

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

Dispose in accordance with all applicable regulations. Local disposal 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).

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

TDG

UN number UN1987

UN proper shipping name ALCOHOLS, N.O.S. (Ethanol; Acetone)

Transport hazard class(es)

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

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

IATA

UN number UN1987

UN proper shipping name Alcohols, n.o.s. (Ethanol; Acetone)

Transport hazard class(es)

3 Class

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

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

IMDG

UN1987 **UN** number

ALCOHOLS, N.O.S. (Ethanol; Acetone) UN proper shipping name

Transport hazard class(es) Class 3 Subsidiary risk Ш Packing group

Environmental hazards

Marine pollutant Nο 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 Not established.

the IBC Code

15. Regulatory information

This product has been classified in accordance with the hazard criteria of the HPR and the SDS Canadian regulations

contains all the information required by the HPR.

Canada. Excluded VOCs. Guidelines for Volatile Organic Compounds in Consumer Products. CEPA 1999. Environment Canada, as amended

Acetone (CAS 67-64-1)

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

Acetone (CAS 67-64-1)

Precursor Control Regulations

Acetone (CAS 67-64-1) Class B

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	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

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

Toxic Substances Control Act (TSCA) Inventory

Yes

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16. Other information

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Revision date 04-October-2023

Version No. 02

United States & Puerto Rico

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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).

Disclaimer

This product is subject to Greenfield Global Inc.'s terms and conditions, which can be found at http://www.greenfield.com/tc-po-can/. The information in this SDS is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. The information in this safety data sheet must be regarded as a description of the safety requirements relating to the material and not as a guarantee of the properties thereof. No warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy itself as to the suitability of such information for its own particular use. This information relates only to the specific product designated and may not be valid for such product used in combination with any other materials or in any process. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations applicable to the use, storage, or handling of the product. THE COMPANY MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF PERFORMANCE, OR USAGE OF TRADE, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. Given the variety of factors that can affect the use and application of the product, which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to independently determine whether it is fit for a particular purpose, suitable, safe, and/or lawful for user's method of use or application.