

SAFETY DATA SHEETS

This SDS packet was issued with item:

078939714

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078939715 078939716 078939717

MATERIAL SAFETY DATA SHEET

Section 1 Product & Company Information

Product Name: Defense Ag

Product Description: Sanitizer

Date: April 1, 2020

Section 2 Composition & Ingredients

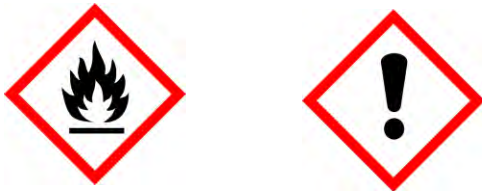
Product may contain trace residual amounts of:

Hydroxyethyl cellulose CAS 9004-62-0

Curcumin CAS 458-37-7

Ethyl Alcohol 64-17-5

Section 3 Hazard Identification

Classification	EYE DAMAGE/IRRITATION - Category 2A FLAMMABLE LIQUIDS - Category 3
Signal Word	Danger Pictogram
Pictogram	
Hazard Statements	Causes eye irritation Highly flammable liquid and vapor
Precautionary Statements Response	If eye irritation persists: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If swallowed: Immediately call a poison center/doctor. Rinse mouth. In case of fire: Use water spray, alcohol resistant foam dry chemical or carbon dioxide to extinguish.
Prevention	Ground/bond container and receiving equipment. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Take precautionary measures against static discharge.

Storage	Store in a well-ventilated place. Keep cool.
Disposal	Dispose of contents/container to an approved waste disposal plant.
General	Keep out of reach of children
Ingredients of unknown toxicity	0%
Hazards not Otherwise Classified	None known.
Emergency Overview:	<p>Hazard Summary:</p> <p>Take measures to prevent the build up of electrostatic charge. According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified.</p>

Overview: The product is safe for use under all normal and intended circumstances.

Health Effects: Contact with eyes will cause irritation or redness. Contact with skin should not be irritating for use as intended.

Section 4 First Aid Measures

Eyes: Treat as any foreign matter. Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses, if worn. If irritation persists, seek medical attention.

Skin: If skin irritation develops, discontinue use of the product and consult a physician if discomfort continues.

Inhalation: Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Ingestion: If swallowed, call a physician immediately. Rinse mouth and throat thoroughly with water. Do not induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs.

Section 5 Fire Fighting Measures

Extinguishing Media: Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water fog. Do not use: water jet.

Fire Fighting Procedures: Dilution of burning liquid with water will affect extinguishment. Self-contained breathing apparatus and full protective clothing recommended.

Unusual Fire & Explosion Hazards: Irritating or toxic substances can be released in case of fire. Protect product from flames of any kind; maintain proper clearance when using heat devices, etc.

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

Further information: Standard procedure for chemical fires.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:	Ensure adequate ventilation.
Environmental Precautions:	Do not flush into surface water or sanitary sewer system. Should not be released into the environment
Flammable Small Spill:	Absorb with an inert dry material and place in an appropriate waste disposal container.
Flammable Large Spill:	Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.

Section 7 Handling & Storage

Handling Flammable:	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/ fumes/ vapor/ spray. Avoid contact with eyes. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately. Keep away from incompatibles such as oxidizing agents, acids
Storage Flammable	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
Materials to avoid:	Keep away from food and drink.

Section 8 Exposure Controls & Personal Protection

Exposure Limit Values: None under normal use

Household Settings: None under normal use

Non-Household Settings: None under normal use

Ingredients with workplace control parameters

Ingredients	CAS-No.	Form of exposure	Permissible concentration	Basis
ethanol	64-17-5	TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z1

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection : No special protective equipment required.

Hand protection : No special protective equipment required.

Skin protection : No special protective equipment required.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : No specific measures identified.

Section 9 Physical & Chemical Properties

Appearance : Amber gel

Color : opaque, white

Odor : alcoholic

pH : 6.3 - 8.5, 100 %

Flash point : 23 °C closed cup

Odor Threshold : no data available

Melting point/freezing point : no data available

Initial boiling point and boiling range : no data available

Evaporation rate : no data available

Flammability (solid, gas) : no data available

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapor pressure : no data available

Relative vapor density : no data available

Relative density : 0.869 - 0.873

Water solubility : no data available

Solubility in other solvents : no data available

Partition coefficient: n-octanol/water : no data available

Autoignition temperature : no data available

Thermal decomposition : no data available

Viscosity, kinematic : no data available

Explosive properties : no data available

Oxidizing properties : no data available

Molecular weight : no data available

VOC : no data available

Section 10 Stability & Reactivity

Stability:	Stable under normal circumstances
Conditions & Materials to Avoid:	Avoid heat, sparks and open flame. Anhydride, isocyanate, monomer and organo-metallic.
Hazardous decomposition products:	Burning may produce carbon monoxide and carbon dioxide contamination.

Section 11 Toxicological Information

INFORMATION ON TOXICOLOGICAL EFFECTS:

TOXICITY DATA: The following toxicological data are available for Ethanol. Due to the large amount of data available, only available human data, corrosivity data, LD50 (Oral-Rat or Mouse), LD50 (Skin-Rabbit or Rat), LC50 (Inhalation-Rat or Mouse) and mutagenic data are presented in this SDS. Contact Badger Ethanol for more information.

ETHANOL:

Open Irritation Test (Skin-Rabbit) 400 mg: Mild
Standard Draize Test (Skin-Rabbit) 20 mg/24 hours: Moderate
Standard Draize Test (Eye-Rabbit) 500 mg: Severe
Standard Draize Test (Eye-Rabbit) 500 mg/24 hours: Mild
Rinsed with Water (Eye-Rabbit) 100 mg/ seconds: Moderate
TDLo (Oral-Human) 22,500 mg/kg/4 weeks-intermittent: Endocrine: other changes; Blood: other changes

ETHANOL (continued):

TDLo (Oral-Human) 0.5 mg/kg: Behavioral: changes in psychophysiological tests
TDLo (Oral-Human) 400 mg/kg: Behavioral: alteration of operant conditioning
TDLo (Oral-Human) 0.7 gm/kg/10 minutes: Behavioral: changes in psychophysiological tests
TDLo (Oral-Human) 0.5 gm/kg: Behavioral: somnolence (general depressed activity), changes in psychophysiological tests
TDLo (Oral-Human) 1.4 gm/kg: Behavioral: euphoria, changes in psychophysiological tests; Gastrointestinal: nausea or vomiti
(Oral-Infant) 11,712 µL/kg: Behavioral: general anesthetic; Cardiac: arrhythmias (including changes in conduction); Lungs, Thorax, or Respiration: dyspnea
TDLo (Oral-Child) 14400 mg/kg/30 minutes (intermittent): Behavioral: coma; Lungs, Thorax, or Respiration: dyspnea; Gastrointestinal: nausea or vomiting
TDLo (Oral-Woman) 1200 mg/kg/3 hours: Endocrine: changes in gonadotropins; Endocrine: other changes; Blood: other changes
TDLo (Oral-Woman) 256 gm/kg/12 weeks: Behavioral: hallucinations, distorted perceptions; Endocrine: effect on menstrual cycle
TDLo (Oral-Woman) 0.7 gm/kg: Behavioral: changes in psychophysiological tests
TDLo (Oral-Woman) 41 gm/kg: female 41 week(s) after conception: Reproductive: Effects on Newborn: Apgar score (human only), other neonatal measures or effects, drug dependence
TDLo (Oral-Woman) 250 mg/kg: female 37 week(s) after conception: Reproductive: Effects on Embryo or Fetus: other effects to embryo
TDLo (Oral-Woman) 5860 mL/kg: female 3 year(s) pre-mating: 100 day(s) post-birth: Reproductive: Specific Developmental Abnormalities: craniofacial (including nose and tongue); Effects on Newborn: behavioral, delayed effects
TDLo (Oral-Man) 3371 µL/kg: Behavioral: altered sleep time (including change in righting reflex), excitement, coma
TDLo (Oral-Man) 700 mg/kg: Behavioral: changes in psychophysiological tests
TDLo (Oral-Man) 50 mg/kg: Gastrointestinal: alteration in gastric secretion, other changes
TDLo (Oral-Man) 1430 µg/kg: Behavioral: changes in motor activity (specific assay), ataxia, antipsychotic
TDLo (Intravenous-Human) 1.6 gm/kg/6 hours: Biochemical: Metabolism (Intermediary): other
TDLo (Intravenous-Human) 0.89 mL/kg: Vascular: regional or general arteriolar constriction, measurement of regional blood flow
TDLo (Intravenous-Man) 0.57 gm/kg: Behavioral: changes in psychophysiological tests
TDLo (Intravenous-Woman) 8 gm/kg: female 32 week(s) after conception: Reproductive: Effects on Newborn: Apgar score (human only), other neonatal measures or effects
TDLo (Intraarterial-Man) 0.071 mL/kg: Vascular: acute arterial occlusion
TDLo (Intrauterine-Woman) 200 mg/kg: female 5 day(s) pre-mating: Reproductive: Fertility: female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated)
TDLo (Multiple Routes-Man) 3660 mg/kg: Endocrine: evidence of thyroid hypofunction
TCLo (Inhalation-Human) 2500 mg/m³/20 minutes: Peripheral Nerve and Sensation: recording from afferent nerve
LDLo (Oral-Child) 2 gm/kg: Lungs, Thorax, or Respiration: other changes; Liver: fatty liver degeneration; Blood: other changes
LDLo (Oral-Human) 1400 mg/kg: Behavioral: sleep, headache; Gastrointestinal: nausea or vomiting
LDLo (Subcutaneous-Infant) 19,440 mg/kg: Behavioral: convulsions or effect on seizure threshold, coma; Nutritional and Gross Metabolic: body temperature decrease
LC₅₀ (Inhalation-Rat) 20,000 ppm/10 hours
LC₅₀ (Inhalation-Mouse) 39 gm/m³/4 hours
LD₅₀ (Oral-Rat) 7060 mg/kg: Lungs, Thorax, or Respiration: other changes
LD₅₀ (Oral-Rat) 7 gm/kg

LD₅₀ (Oral-Mouse) 3450 mg/kg

Eye contact	: Redness, Pain, Irritation
Skin contact	: No symptoms known or expected.
Ingestion	: No symptoms known or expected.
Inhalation	: No symptoms known or expected.

Toxicity

Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available

Carcinogenicity

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT-single exposure	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT-repeated exposure	: no data available
Aspiration toxicity	: no data available

Section 12 Ecological Information

Ecotoxicity / Environmental Fate: None known or expected from this product as furnished

Section 13 Disposal Information

Disposal should comply with all appropriate regulations and environmental considerations.

Household Settings: Normal disposal procedures

Non-Household Settings: Normal disposal procedures

Section 14 Transportation Information

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

UN number	: 1170
Description of the goods	: Ethanol solutions
Class	: 3
Packing group	: III
Environmentally hazardous	: no

Sea transport (IMDG/IMO)

UN number	: 1170
Description of the goods	: ETHANOL SOLUTION
Class	: 3
Packing group	: III
Marine pollutant	: no

Section 15 Additional Regulatory Information

SARA Title III Section 304 Extremely Hazardous Substances Reportable Quantity	This material does not contain any components with a section 304 EHS RQ.
SARA Title III Section 302 Extremely Hazardous Substances:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA Title III Section 313 Toxic Chemicals	This material does not contain any chemical components with known CAS No. that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
Clean Air Act	This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61) This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.138, Subpart F). Clean Water Act: This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307 This product does not contain any Hazardous substances listed under the U.S. Clean Water Act, Section 311, Table 117.3

Section 16 Other Information

Disclaimer: This MSDS is based on our best knowledge of the health and safety hazard information of the product as of the date above. If the product is combined with other materials or contaminated, it may pose hazards not covered above. It is intended for users with knowledge to evaluate their conditions of use and apply any appropriate protective measures deemed necessary. The company makes no warranties and assumes no liability in connection with any use of this information since the conditions of use are outside the company's control.