

## SAFETY DATA SHEETS

**This SDS packet was issued with item:**

078939716

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

078939714 078939715 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

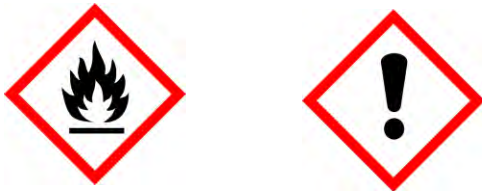
Product may contain trace residual amounts of:

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><b>Hazard Summary:</b></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, CO<sub>2</sub>, 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

<b>Personal precautions, protective equipment and emergency procedures:</b>	Ensure adequate ventilation.
<b>Environmental Precautions:</b>	Do not flush into surface water or sanitary sewer system. Should not be released into the environment
<b>Flammable Small Spill:</b>	Absorb with an inert dry material and place in an appropriate waste disposal container.
<b>Flammable Large Spill:</b>	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

<b>Handling Flammable:</b>	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
<b>Storage Flammable</b>	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).
<b>Materials to avoid:</b>	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

<b>Stability:</b>	Stable under normal circumstances
<b>Conditions &amp; Materials to Avoid:</b>	Avoid heat, sparks and open flame. Anhydride, isocyanate, monomer and organo-metallic.
<b>Hazardous decomposition products:</b>	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/m<sup>3</sup>/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  
LC<sub>50</sub> (Inhalation-Rat) 20,000 ppm/10 hours  
LC<sub>50</sub> (Inhalation-Mouse) 39 gm/m<sup>3</sup>/4 hours  
LD<sub>50</sub> (Oral-Rat) 7060 mg/kg: Lungs, Thorax, or Respiration: other changes  
LD<sub>50</sub> (Oral-Rat) 7 gm/kg

LD<sub>50</sub> (Oral-Mouse) 3450 mg/kg

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

### **Toxicity**

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

### **Carcinogenicity**

<b>IARC</b>	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.
<b>OSHA</b>	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.
<b>NTP</b>	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.
<b>Reproductive effects</b>	: no data available
<b>Germ cell mutagenicity</b>	: no data available
<b>Teratogenicity</b>	: no data available
<b>STOT-single exposure</b>	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
<b>STOT-repeated exposure</b>	: no data available
<b>Aspiration toxicity</b>	: 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

<b>SARA Title III Section 304 Extremely Hazardous Substances Reportable Quantity</b>	<b>This material does not contain any components with a section 304 EHS RQ.</b>
<b>SARA Title III Section 302 Extremely Hazardous Substances:</b>	<b>No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.</b>
<b>SARA Title III Section 313 Toxic Chemicals</b>	<b>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</b>
<b>Clean Air Act</b>	<b>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</b>

## **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.