

## **Safety Data Sheet DEPLOY**

**SDS Number:** 105 **Revision:** August 9, 2017

## Section 1 · IDENTIFICATION

**Product Name** Deploy

> Other Identification Propriety mixture of Alkylarylpolyoxy Proprietary glycols, isopropanol.

**Product Form** Mixture

**Recommended Use** Agricultural spray adjuvant.

Manufacturer

Company Name Custom Ag Formulators, Inc.

Address 3430 S Willow Ave, Fresno, CA 93725, United States

Telephone (800) 355-4457 Website www.4caf.com

**Emergency Contacts** Custom Ag Formulators, Inc. (559) 435-1052

> **CHEMTREC** (800) 424-9300 (Domestic)

(703) 527-3887 (International)

## Section 2 · HAZARD(S) IDENTIFICATION

## **Classification of the Substance or Mixture**

## **Classification (GHS-US)**

Eye Irrit. 2A H319 Skin Sens. 1 H317 Carc. 2 H351 STOT RE 2 H373 Aquatic Acute 2 H401 Aquatic Chronic 3 H412 Full text of H-phrases: see section 16

#### **Label Elements**

**GHS-US Labeling** 

**Hazard Pictograms (GHS-US)** 





Signal Word (GHS-US) : Warning

**Hazard Statements (GHS-US)** : H317 - May cause an allergic skin reaction.

> H319 - Causes serious eve irritation.

H351 - Suspected of causing cancer.



#### **Precautionary Statements (GHS-US)**

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe vapors, mist, or spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, and eye protection.

P302+P352 - If on skin: Wash with plenty of water.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.

P314 - Get medical advice/attention if you feel unwell. P321 - Specific treatment (see section 4 on this SDS). P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical

advice/attention.

P362+P364 - Take off contaminated clothing and wash it

before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

#### **Other Hazards**

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

## **Unknown Acute Toxicity (GHS-US)**

No data available

## Section 3 · COMPOSITION/INFORMATION ON INGREDIENTS

#### **Substance**

Not applicable

#### **Mixture**

Product Name: Deploy

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Name	<b>Product Identifier</b>	%	Classification (GHS-US)
Proprietary glycol	(CAS No) Proprietary	Proprietary	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Proprietary alcohol	(CAS No) Proprietary	Proprietary	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Proprietary ingredient 3	(CAS No) Proprietary	Proprietary	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aguatic Chronic 3, H412



Proprietary trialkylamine (CAS No) Proprietary Acute Tox. 4 (Oral), H302 Proprietary

Acute Tox. 2 (Inhalation),

H330

Skin Corr. 1C, H314 Eve Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Skin Irrit. 2, H315 Proprietary ingredient 5 (CAS No) Proprietary **Proprietary** 

> Eye Irrit. 2A, H319 Carc. 2, H351

Aquatic Acute 2, H401

Acute Tox. 4 (Oral), H302 Proprietary ingredient 6 (CAS No) Proprietary **Proprietary** 

> Skin Irrit. 2, H315 Eye Dam. 1, H318 Carc. 2, H351 **STOT RE 2, H373** Aquatic Acute 2, H401 Aquatic Chronic 3, H412

## Section 4 · FIRST-AID MEASURES

Inhalation When symptoms occur: go into open air and ventilate suspected area. Call a

POISON CENTER or doctor/physician if you feel unwell.

Remove contaminated clothing. Drench affected area with water for at **Skin Contact** 

least 15 minutes. Obtain medical attention if irritation develops or persists.

Wash contaminated clothing before reuse.

**Eye Contact** Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing for at least 60 minutes.

Immediately call a POISON CENTER or doctor/physician.

Ingestion Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER

or doctor.

**General Information** 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.

## Section 5 · FIRE-FIGHTING MEASURES

Suitable extinguishing Dry powder, alcohol-resistant foam, water in large amounts, carbon

dioxide (CO2).

Unsuitable Do not use a heavy water stream. Use of heavy stream of water may spread extinguishing

fire. Application of water stream to hot product may cause frothing and

increase fire intensity.

Specific hazards arising from the chemical

Fire Hazard: Not considered flammable but will burn at high temperatures.

Explosion Hazard: Product is not explosive.

Reactivity: May react violently with oxidants, causing fire and explosion



hazard.

**Special protective** equipment and precautions for firefighters

Firefighters must wear NIOSH/MSHA approved positive pressure selfcontained breathing apparatus with full face mask and full protective

clothing.

Fire-fighting equipment/instructions

Use water spray or fog for cooling exposed containers. Do not get water inside containers. Do not apply water stream directly at source of leak. Do

not breathe fumes from fires or vapors from decomposition. Do not allow

run-off from firefighting to enter drains or water courses.

Specific methods Use standard firefighting procedures and consider the hazards of other

involved materials.

**General fire hazards** Do not enter fire area without proper protective equipment, including

respiratory protection.

## Section 6 · ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid all contact with skin, eyes, or clothing. Avoid breathing vapor, mist, or spray. Use appropriate personal protection equipment (PPE). Evacuate unnecessary personnel.

#### Methods and materials for containment and cleaning up

Large Spills Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. If spilled directly onto the ground, remove sufficient soil to ensure material is fully recovered. Contact competent authorities after a spill.

Small Spills

Contain any spills with dikes or absorbents to prevent migration and entry

into sewers or streams.

**Environmental** precautions

Do not allow runoff to sewer, waterway or ground.

## Section 7 · HANDELING & STORAGE

**Precautions for safe** handling

Do not handle until all safety precautions have been read and understood. Use appropriate personal protection equipment (PPE). Avoid contact with skin, eyes and clothing. Avoid breathing vapors, mist, and spray. Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

**Conditions for safe** 

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Store in a dry, cool and well-ventilated place. Keep container closed when



storage, including any incompatibilities

not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

*Incompatible Products:* Strong acids. Strong bases. Strong oxidizers. Acetaldehyde. Chlorine. Ethylene oxide. Isocyanates. Peroxides. Bromine.

## Section 8 · EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Control Parameters**

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

**Proprietary ingredient 6 (Proprietary)** 

**USA ACGIH** ACGIH TWA (mg/m³) 1 mg/m³ (inhalable fraction and vapor)

**USA ACGIH** ACGIH chemical category Skin - potential significant contribution to overall exposure by

the cutaneous route, Confirmed Animal Carcinogen with

Unknown Relevance to Humans

USA NIOSH NIOSH REL (TWA) (mg/m³) 15 mg/m³
USA NIOSH NIOSH REL (TWA) (ppm) 3 ppm

**Proprietary glycol (Proprietary)** 

**USA ACGIH** ACGIH Ceiling (mg/m³) 100 mg/m³ (aerosol only)

**USA ACGIH** ACGIH chemical category Not Classifiable as a Human Carcinogen

Proprietary alcohol (Proprietary)

USA ACGIH ACGIH TWA (ppm) 200 ppm USA ACGIH ACGIH STEL (ppm) 400 ppm

**USA ACGIH** ACGIH chemical category Not Classifiable as a Human Carcinogen

USA NIOSHNIOSH REL (TWA) (mg/m³)980 mg/m³USA NIOSHNIOSH REL (TWA) (ppm)400 ppmUSA NIOSHNIOSH REL (STEL) (mg/m³)1225 mg/m³USA NIOSHNIOSH REL (STEL) (ppm)500 ppm

USA IDLH US IDLH (ppm) 2000 ppm (10% LEL)

USA OSHA OSHA PEL (TWA) (mg/m³) 980 mg/m³
USA OSHA OSHA PEL (TWA) (ppm) 400 ppm

**Exposure Controls** 

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**Appropriate Engineering Controls** : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment** : Protective goggles. Gloves. Protective clothing.

Insufficient ventilation: wear respiratory protection.









Materials for Protective Clothing: Chemically resistantmaterials and fabrics. Hand Protection: Wear chemicallyresistant protective gloves. Eye Protection: Chemical safety goggles.

**Skin and Body Protection** : Wear suitable protective clothing.

**Respiratory Protection** : If exposure limits are exceeded or irritation is experienced,

approved respiratory protection should be worn.

**Other Information** : When using, do not eat, drink or smoke.



# Section 9 · PHYSICAL & CHEMICAL PROPERTIES

**Appearance** Clear, liquid. **Odor** Surfactant odor

Odor threshold N/A pH 6.93

Melting point/freezing

 $^{\circ}$  N/A / < 35 °F (< 1.67 °C)

point

Initial boiling point and > 200 °F (> 93.33 °C)

boiling range

Flash point > 200 °F (> 93.33 °C)

**Evaporation rate** N/A Flammability (solid, gas) N/A

Upper/lower flammability or explosive limits

Flammability limit - N/A

lower (%)

Flammability limit - N/A

upper (%)

Explosive limit - lower N/A

(%

Explosive limit - upper N/A

(%)

Vapor density N/A Relative density 8.8 lbs/gal

Specific gravity 1.05

Solubility(ies)

Solubility (water) 100%

Partition coefficient (n- N/A

octanol/water)

Auto-ignition N/A

temperature

**Decomposition** N/A

temperature

Viscosity N/A

## Section 10 · STABILITY & REACTIVITY

**Reactivity** May react violently with oxidants, causing fire and explosion hazard.

**Chemical stability** Material is stable under normal conditions

**Possibility of hazardous** 

reactions

Hazardous polymerization will not occur

**Conditions to avoid** Direct sunlight. Extremely high or low temperatures. Sources of ignition.

Incompatible materials

**Incompatible materials** Strong acids. Strong bases. Strong oxidizers. Acetaldehyde. Chlorine.

Ethylene oxide. Isocyanates. Peroxides. Bromine.

Hazardous

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**decomposition** May release flammable gases. Carbon oxides (CO, CO 2). Nitrogen oxides.

products Hydrocarbons. Carbonyl compounds.



## Section 11 · TOXICOLOGICAL INFORMATION

**Information On Toxicological Effects** 

Acute Toxicity: Not classified

Deploy

**LD50 Oral Rat** > 5050 **LD50 Dermal Rabbit** > 2020 mg/kg

**Proprietary trialkylamine (Proprietary)** 

ATE (Oral) 500.00 mg/kg body weight

 ATE (Gases)
 100.00 ppmV/4h

 ATE (Vapors)
 0.50 mg/l/4h

 ATE (Dust/Mist)
 0.05 mg/l/4h

Proprietary ingredient 5 (Proprietary)

 LD50 Oral Rat
 12400 mg/kg

 LD50 Dermal Rabbit
 > 2000 mg/kg

Proprietary ingredient 6 (Proprietary)

LD50 Oral Rat 1820 mg/kg

Proprietary glycol (Proprietary)

LD50 Oral Rat 4700 mg/kg
LD50 Dermal Rat 10600 mg/kg

ATE (Oral) 500.00 mg/kg body weight
ATE (Dermal) 10,600.00 mg/kg body weight

Proprietary alcohol (Proprietary)

LD50 Oral Rat 4710 mg/kg LD50 Dermal Rabbit 4059 mg/kg

LC50 Inhalation Rat 72.6 mg/l/4h (Exposure time: 4 h)

**Proprietary ingredient 3 (Proprietary)** 

LD50 Oral Rat 1310 mg/kg

Skin Corrosion/Irritation: Not classified.

**Serious Eye Damage/Irritation:** Causes serious eye irritation. Derived from a read across of primary eye irritation study in White New Zealand rabbits. Effects were fully reversable within 21 days, but elicited pirmary irritation in 2 of 3 tested animals (Pesticide Assessment Guidelines, Subdivision F, Hazard Evaluation: Series 81-5, EPA 540/9-84-014).

**pH**: 6.93

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**Respiratory or Skin Sensitization:** May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified
Carcinogenicity: Suspected of causing cancer.
Proprietary ingredient 5 (Proprietary)

IARC group 2B

OSHA Hazard Communication Carcinogen List In OSHA Hazard Communication Carcinogen list.

Proprietary ingredient 6 (Proprietary)

IARC group 2B

OSHA Hazard Communication Carcinogen List In OSHA Hazard Communication Carcinogen list.

Proprietary alcohol (Proprietary)

IARC group 3

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** May cause damage to organs through prolonged or repeated exposure.

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** May cause irritation to the respiratory tract.



Symptoms/Injuries After Skin Contact: Causes skin irritation.

May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: Causes

serious eye irritation. Redness, pain, swelling, itching, burning, tearing, and blurred vision.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

## Section 12 · ECOLOGICAL INFORMATION

**Toxicity** 

**Ecology - General** : Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

**Deploy** 

LC50 Fish 1 9.1 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
NOEC (acute) 3.2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

Proprietary trialkylamine (Proprietary)
NOEC chronic fish 0.5 mg/l
Proprietary ingredient 5 (Proprietary)

LC50 Fish 13.6 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])EC50 Daphnia 12.15 mg/l (Exposure time: 48 h - Species: Daphnia pulex [Static])ErC50 (algae)2.2 mg/l (Exposure time: 72 h - Species: Scenedesmus subspicatus)

**Proprietary ingredient 6 (Proprietary)** 

LC50 Fish 1 4460 (4460 - 4980) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-

through])

**EC50 Daphnia 1** 55 mg/l (Exposure time: 48 h - Species: Daphnia magna)

LC 50 Fish 2 1200 (1200 - 1580) mg/l (Exposure time: 96 h - Species: Pimephales promelas

[static])

EC50 Other Aquatic 2.1 (2.1 - 2.3) mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata) 2.2 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata [Static])

NOEC chronic crustacea 0.78 mg/l Proprietary glycol (Proprietary)

**LC50 Fish 1** 41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss) **EC50 Daphnia 1** 46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)

LC 50 Fish 2 14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Proprietary alcohol (Proprietary)

LC50 Fish 1 9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

**EC50 Daphnia 1** 13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)

**EC50 Other Aquatic** 1000 mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus)

Organisms 1

LC 50 Fish 2 11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Other Aquatic 1000 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)

Organisms 2

Persistence and Degradability

Deploy

Persistence and Degradability Not established.

**Bioaccumulative Potential** 

Deploy

Bioaccumulative Potential Not established.

**Proprietary ingredient 6 (Proprietary)** 

**BCF fish 1** (no significant bioconcentration)

**Log Pow** -2.18 (at 25 °C)

Proprietary glycol (Proprietary)

**Log Pow** -1.93

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Proprietary alcohol (Proprietary)

Log Pow 0.05 (at 25 °C)

**Mobility in Soil** No additional information available

**Other Adverse Effects** 

Other Information : Avoid release to the environment.

## Section 13 · DISPOSAL CONSIDERATION

**Disposal instructions** Consult federal, state and local regulations for disposal requirements.

**Local disposal** regulations

Dispose in accordance with all applicable regulations.

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

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue,

follow label warnings even after container is emptied.

#### Section 14 · TRANSPORT INFORMATION

Not DOT regulated in domestic (USA ground) transportation in package General

sizes less than 3,550 lbs (317 gallons); 1,610 kg (1,200 liters). The DOT transportation information below is for shipments with package sizes equal

to or exceeding this value. IMDG Regulated Marine Pollutant.

## **DOT - Basic shipping requirements:**

UN number Not regulated for transport

DOT Label Not regulated for transport

Proper shipping name Not regulated for transport

Hazard class Not regulated for transport

Packing group Not regulated for transport

## **IMGD** - Basic shipping requirements:

UN number Not regulated for transport

IMGD Label Not regulated for transport

Proper shipping name Not regulated for transport

Hazard class Not regulated for transport Packing group Not regulated for transport

EMS NO Not regulated for transport

## IATA - Basic shipping requirements:

UN number Not regulated for transport

Proper shipping name Not regulated for transport

Hazard class Not regulated for transport Packing group Not regulated for transport

> OCAP Not regulated for transport

**Environmental hazards** 

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Marine pollutant Yes

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



## Section 15 · REGULATORY INFORMATION

US federal The regulatory data in Section 15 is not

regulations intended to be all-inclusive, only

selected regulations are represented.
All ingredients of this product are listed

on the TSCA

(Toxic Substance Control Act) inventory or are not required to be listed on the

TSCA inventory.

Proposition 65

(CA)

Warning: This product contains chemicals known to the State of

California to cause cancer and birth defects or other reproductive harm.

TSCA Section 12(b) Export Notification

(40 CFR 707, Subpt. D)

Not regulated

**CERCLA Hazardous Substance List (40 CFR 302.4)** 

Reportable Quantity

applicable

SARA 304 Emergency release

notification

Not regulated

**OSHA Specifically Regulated Substances** 

(29 CFR 1910.1001-1050)

Not listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate

e Yes

Delayed No

Hazard

Hazard

Fire Hazard No Pressure No

Hazard

Reactivity

Hazard

**SARA 302 Extremely hazardous** 

substance

Not listed

No

SARA 311/312 Immediate (acute) health

Hazardous chemical hazard

azaru

Delayed (chronic) health hazard

## Section 16 · OTHER INFORMATION

Issue date

August 9, 2017

Disclaimer

Product Name: Deploy

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The above information is based on data of which the manufacturer is aware and is believed to be correct as of the date hereon. Since the information contained herein may be applied under conditions beyond the manufacturer's control and which may be unfamiliar and since data made available subsequent to the date hereof may suggest

modifications of the information, the manufacturer does not assume any responsibility



for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

#### **GHS Full Text Phrases:**

Acute Tox. 2 (Inhalation) Acute toxicity (inhalation) Category 2 Acute Tox. 4 (Oral) Acute toxicity (oral) Category 4

Aquatic Acute 1 Hazardous to the aquatic environment - Acute Hazard Category 1 Aquatic Acute 2 Hazardous to the aquatic environment - Acute Hazard Category 2 Hazardous to the aquatic environment - Chronic Hazard Category 1 Aquatic Chronic 1 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 3

Carc. 2 Carcinogenicity Category 2

Eye Dam. 1 Serious eye damage/eye irritation Category 1 Eye Irrit. 2A Serious eye damage/eye irritation Category 2A

Flammable liquids Category 2 Flam. Liq. 2

Skin Corr. 1C Skin corrosion/irritation Category 1C Skin Irrit. 2 Skin corrosion/irritation Category 2 Skin Sens. 1 Skin sensitization Category 1

STOT RE 2 Specific target organ toxicity (repeated exposure) Category 2 STOT SE 3 Specific target organ toxicity (single exposure) Category 3 STOT SE 3 Specific target organ toxicity (single exposure) Category 3

H225 Highly flammable liquid and vapor

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H318 Causes serious eye damage H319 Causes serious eye irritation

H330 Fatal if inhaled

H335 May cause respiratory irritation H336 May cause drowsiness or dizziness H351 Suspected of causing cancer

H373 May cause damage to organs through prolonged or repeated exposure

H400 Very toxic to aquatic life H401 Toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects H412 Harmful to aquatic life with long lasting effects