



SAFETY DATA SHEET

Nullify A/P

SECTION 1: IDENTIFICATION

Product Name: Nullify A/P
EPA Registration No.: 42750-258-53883
Recommended Use: Herbicide; See product label for a complete list of uses and use sites.
Restrictions on Use: See product label for any restrictions on the use of this product.
Chemical Family: Not determined
Chemical Name of Active Ingredient(s): Glufosinate-ammonium
Manufactured for: Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507

FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES CONTACT: CHEMTREC 1-800-424-9300

FOR MEDICAL EMERGENCIES AND HEALTH AND SAFETY INQUIRIES CONTACT: Safety Call 1-866-897-8050

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW: Dark blue clear liquid with a slight ammonia odor. Severe eye irritant.

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Dermal Toxicity	Category 3
Acute Oral Toxicity	Category 4
Eye Damage/Irritation	Category 2
Dermal Sensitization	Category 1

Signal Word: DANGER



Hazard Statement(s): Toxic in contact with skin.
Harmful if swallowed.
Causes serious eye irritation.
May cause an allergic skin reaction.

Precautionary Statement(s):

Prevention: Wear eye protection, protective gloves and protective clothing.
Wash hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid breathing mist/vapors/spray.

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

Response: **IF ON SKIN:** Wash with plenty of soap and water. Call a poison center/doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse.

IF SWALLOWED: Call a poison center/doctor if you feel unwell. Rinse mouth.

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.

Storage: Store locked up.
Disposal: Dispose of contents/container in accordance with Federal, state and local laws and regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Glufosinate ammonium	77182-82-2	24.5%

*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

SECTION 4: FIRST AID MEASURES

IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF ON SKIN:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
IF INGESTED:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed: Severe but temporary eye irritation. Dermal sensitization, dermal toxicity and oral toxicity.

NOTE TO PHYSICIAN: If this product is ingested endotracheal intubation and gastric lavage should be performed as soon as possible followed by charcoal and sodium sulfate administration.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Unsuitable Extinguishing Media: Water jet as it may spread fire.

Hazardous Combustion Products: Thermal decomposition may produce toxic carbon, nitrogen and sulfur oxides.

Special Protective Equipment & Precautions: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear self-contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear).

Unusual Fire & Explosion Hazards: None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	See Section 8 for personal protection equipment.
Environmental Precautions:	Keep spilled material and any rinsate from contaminating soil or from entering sewage and drainage systems and bodies of water.
Methods for Containment:	Isolate the spill area. Keep unnecessary and unprotected personnel from entering. Absorb small spills with sand, vermiculite or other inert absorbent. Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify and scrape up for disposal.
Methods for Clean-up:	Place contaminated material in appropriate container for disposal. After removal, flush contaminated area thoroughly with soap and water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not put spilled material back in the original container.
Other Information:	None known

SECTION 7: HANDLING AND STORAGE

Handling:	RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this product. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes.
Storage:	See pesticide label for full information on product storage. Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals.
Storage Temperature (Min/Max):	32°F - 125°F
Product Incompatibilities:	Strong oxidizers, acids or bases

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Users of a pesticide product must refer to the product label for personal protective equipment requirements.

Exposure Guidelines:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
No components listed			

Engineering Controls:	Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.
Respiratory Protection:	In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for pesticides.
Eye Protection:	Chemical goggles or safety glasses and full-face shield.

Protective Gloves:	Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.
Other Protective Clothing:	Long-sleeved shirt, long pants and shoes plus socks.
General Safety Measures:	Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark blue clear liquid	Upper/Lower Flammability Limits:	Not determined
Odor:	Slight ammonia	Vapor Pressure:	Not determined
Odor Threshold:	Not determined	Vapor Density:	Not determined
pH:	6.0 – 7.0	Relative Density (@24°C):	1.13 – 1.17 g/ml
Melting /Freezing Point:	Not determined	Solubility (water):	Emulsifies
Boiling Point/Range:	Not determined	Partition Coefficient:	Not determined
Flash Point:	Not applicable	Auto-ignition Temperature:	Not determined
Evaporation Rate:	Not determined	Decomposition Temperature:	Not determined
Flammability:	Not applicable	Viscosity:	199.8 cSt (20°C) 72.8 cSt (40°C)

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	No hazardous chemical reactions known.
Chemical Stability:	Stable under normal storage and handling conditions but may decompose if heated.
Possibility of Hazardous Reactions:	No potential for hazardous reactions known.
Conditions to Avoid:	Avoid temperatures above (115°F, 46°C) and below 25°F (-5°C).
Incompatible Materials:	Strong oxidizers, acids or bases
Hazardous Decomposition Products:	Thermal decomposition may produce toxic carbon, nitrogen and phosphorous oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure:	Severe but temporary eye irritation. Dermal sensitization, dermal toxicity and oral toxicity.
Oral LD₅₀:	>300 mg/kg (rat)
Dermal LD₅₀:	>700 mg/kg (rat)
Inhalation LC₅₀:	>2.1 mg/L (4-hr)(rat) No mortalities observed at this concentration.
Eye Irritation/Damage:	Severe irritant (rabbit)
Skin Corrosion/Irritation:	Slightly irritating (rabbit)
Skin Sensitization:	Sensitizer (guinea pig)
Chronic/Subchronic Toxicity:	No data available
Mutagenicity:	No evidence of mutagenic effects during in vivo or in vitro studies

Reproductive Toxicity:	Birth defects and reproductive effects shown only at maternally toxic doses
Neurotoxicity:	No data available
Target Organs:	No data available
Aspiration Hazard:	Not anticipated to be an aspiration hazard.
Carcinogenicity:	

Chemical Name	ACGIH	IARC	NTP	OSHA
No components listed				

SECTION 12: ECOLOGICAL INFORMATION

Environmental Hazards Statement from FIFRA Regulated Pesticide Label:

Do not apply directly to water or to areas where surface water is present. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters or rinsate.

This pesticide is toxic to vascular plants and should be used strictly in accordance with the drift and run off precautions on this label in order to minimize off site exposures.

Under some conditions this product may have a potential to run off to surface water or adjacent land.

ECOTOXICITY DATA:

The data presented below is on the technical active ingredient.

Fish Toxicity:

Rainbow trout: 96 hr LC₅₀ >25 mg/L

Bluegill: 96 hr LC₅₀ >50 mg/L

Aquatic Invertebrate Toxicity:

No data available

Aquatic Plant Toxicity:

No data available

Avian Toxicity:

Bobwhite quail: Oral LD₅₀ >2,000 mg/kg

Honeybee Toxicity:

No data available

ENVIRONMENTAL EFFECTS:

Persistence and Degradability:

Glufosinate is moderately persistent with a soil half life of 30 - 180 days depending on soil type and weather conditions. It is very mobile in certain soil types with potential to contaminate ground water

Bioaccumulation:

No data available

Mobility:

No data available

Other Adverse Effects:

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:

Refer to the pesticide label for full information on disposal. Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Disposal:

Refer to the pesticide label for full information on disposal. When possible, triple rinse the container and offer for recycling if available.

RCRA Characteristics:

It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORTATION INFORMATION

DOT
(Ground): Not regulated

IMDG
(Sea): Not determined

IATA
(Air): Not determined

SECTION 15: REGULATORY INFORMATION

Labeling Requirements Under FIFRA: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

WARNING: Causes substantial but temporary eye injury. Harmful if absorbed through skin. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before use. Wear long-sleeved shirt and long pants, socks, shoes and chemical resistant gloves (such as Natural Rubber). Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

SARA Title III Information:

Section 302 – Extremely hazardous substances: None

Section 311/312 – Hazard Categories: Immediate (Acute); Chronic (Delayed)

Section 313 – This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %
No components listed		

CERCLA – This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
No components listed			

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
No components listed		

U.S. STATE RIGHT-TO-KNOW REGULATIONS:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Not determined			

SECTION 16: OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards – None
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