



Product: COM-PLEET® 41% SYSTEMIC  
GRASS & WEED KILLER  
EPA Reg. No.: 67760-49-869  
Effective Date: 04/01/2001

**MATERIAL SAFETY DATA SHEET**  
Emergency Phone 800/535-5053

Size	Product Number	UPC Code
Pint	12016	0 49424 12016 1
Quart	12032	0 49424 12032 1

**Note:** Be sure to compare the EPA registration number as given on the MSDS with the EPA registration number as given on the label as some products have had the active ingredients changed without a corresponding change in the UPC number or in the item description.

**1. INGREDIENTS**

N-(Phosphonomethyl)glycine, compd. with 2-propanamine (1:1)(CAS # 38641-94-0): 41%  
Inert Ingredients: 59%

**2. PHYSICAL DATA**

PHYSICAL STATE: Clear solution  
COLOR: Yellow  
ODOR: Practically odorless  
MELTING POINT: <0°C (32°F)  
BOILING POINT: >100°C (212°F)  
SPECIFIC GRAVITY: 1.07 g/ml at 20°C (68°F)  
VAPOR PRESSURE: For the active ingredient glyphosate free acid:  $1.75 \times 10^{-7}$  mm Hg ( $1.31 \times 10^{-5}$  Pa) at 25°C (77°F)  
SOLUBILITY IN WATER: The product is miscible in water (solubility active ingredient glyphosate free acid: 10.5 g/l at 20°C (68°F)).  
pH: Approx. 5.0  
FLASH POINT: >75°C (167°F)(Pensky-Martens closed tested)  
AUTOIGNITION TEMPERATURE: Not available.  
FLAMMABLE LIMITS: Not available.

**3. HEALTH HAZARD DATA**

INHALATION: The product is only very slightly harmful by inhalation.  
EYE CONTACT: The product may cause minimal eye irritation.  
SKIN CONTACT: The product is not expected to cause irritation to skin.  
INGESTION: The product is slightly harmful if swallowed. No significant adverse health effects are expected to develop if only a small amount (less than a few mouthfuls) are swallowed. Ingestion of similar formulations has been reported to produce gastrointestinal discomfort with nausea, vomiting, and diarrhea. Oral ingestion of large quantities of one similar product has been reported to result in hypotension and lung edema.

**4. EMERGENCY AND FIRST AID PROCEDURES**

IF IN EYES: Immediately flush with plenty of water while opening eyelids.  
IF ON SKIN: Wash with water and soap.  
IF SWALLOWED: Immediately dilute by drinking milk. If not available drink water. Get medical attention if symptoms develop.  
IF INHALED: Remove individual to fresh air.

**5. FIRE AND EXPLOSION DATA**

EXTINGUISHING MEDIA AND PROCEDURES: Dry chemical or carbon dioxide for small fires. Water spray or foam for large fires. Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapors and toxic



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HAZARDOUS DECOMPOSITION OR  
BY-PRODUCTS IN A FIRE:

decomposition products. Fight fire from protected location or maximum possible distance. Avoid heavy hose streams. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.

The essential breakdown products are carbon monoxide, carbon dioxide, phosphorus pentoxide and nitrogen oxides.

UNUSUAL FIRE & EXPLOSION  
HAZARD:

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## 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION:

Observe all protection and safety precautions when cleaning up spills, see Section 8.

STEPS TO BE TAKEN IN CASE OF SPILL

**Small Liquid Spills:**

Material on the floor or other impervious surfaces should be soaked up with towels or other absorbent material and can be discarded as non-hazardous waste. Clean spill area with soap and water and rinse thoroughly.

**Large Liquid Spills:**

Material on the floor or other impervious surfaces should be contained or diked and then absorbed with attapulgite, bentonite or other absorbent clays. Collect the contaminated absorbent, place in suitable containers and dispose of in accordance with the instructions under Disposal (see Section 12). Thoroughly scrub floor or other impervious surfaces with strong industrial detergent and rinse with water. Large spills that soak into the ground should be dug up, placed in suitable containers and disposed of in accordance with instructions provided under Disposal (see Section 12). Contact appropriate state agency when considering a land spreading disposal option.

## 7. HANDLING AND STORAGE

PRECAUTIONS IN HANDLING:

Spray solutions of the product should be mixed, stored or applied using only stainless steel, aluminium, fiberglass, plastic or plastic-lined containers. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

PRECAUTIONS IN STORING:

The product is stable under normal conditions of warehouse storage. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE GLOVES:

Wear chemical resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton.

EYE PROTECTION:

Wear goggles, face shield or safety glasses.

SKIN PROTECTION:

Wear long-sleeved shirt, long pants and shoes plus socks.

RESPIRATORY PROTECTION:

The undiluted product is not likely to present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material during manufacture or handling which produces a heavy vapor or mist, workers should use NIOSH/MSHA approved respiratory protection equipment. Respirators are not required for application of the product diluted in accordance with label instructions.

WORK/HYGIENE PRACTICES:

Do not get in eyes. Avoid breathing vapor or spray mist. Wash hands before eating. Wash with soap and water after handling. Remove contaminated clothing and wash before reuse. Discard clothing and other



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absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them.

**9. STABILITY AND REACTIVITY**

CHEMICAL STABILITY:  
 MATERIALS TO AVOID:

This product is stable at ambient temperatures.

**Do not mix, store or apply this product or spray solution of this product in galvanized or unlined steel containers or spray tanks. Stainless steel may be used.** This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible mixture with air. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source. Does not occur. The product can react with caustic (alkaline) materials to liberate heat. This is not a polymerization but an acid-base neutralization reaction.

HAZARDOUS POLYMERIZATION:

**10. TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY:

INGESTION:

LD50, rat, oral: > 5000 mg/kg\*

SKIN:

LD50, rat, dermal: > 5000 mg/kg\*

INHALATION:

LD50, rat: > 5.00 mg/L/4 h\*

\*Estimate based on measurements on a similar product.

EYE & SKIN IRRITATION:

Non-irritating to skin, minimally irritating to eyes.

ALLERGIC SENSITATION:

Not a skin sensitizer.

CARCINOGENICITY:

EPA classification of glyphosate: category E (evidence of non-carcinogenicity to humans).

REPRODUCTIVE EFFECTS:

No reproductive effects are found in rats.

TERATOGENICITY:

No effects are found in rats and rabbits at maternal non-toxic doses (<1000 mg/kg/day).

MUTAGENICITY:

Glyphosate is non-mutagenic.

**11. ECOLOGICAL INFORMATION**

The active ingredient (glyphosate free acid) is rapidly deactivated by adsorption to clay particles. Glyphosate binds strongly to soil. It is not always readily degraded in waste water treatment plants, depending on circumstances line concentration.

The acute toxicity of the active ingredient glyphosate to wildlife is:

Fish:	96-hr LC50 rainbow trout	95-171 mg/l
Invertebrates:	48-hr EC50, daphnids	87 mg/l
Birds:	LD50, bobwhite quail	>2000 mg/kg
	LD50, mallard duck	>2000 mg/kg
Algae:	96-hr EC50, algae	118 mg/l

**12. DISPOSAL CONSIDERATIONS**

Waste Disposal Methods:

Spill and waste disposal procedures in conformity with state and local regulations must be followed. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

Container Disposal:

Triple rinse or equivalent. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill.

**13. TRANSPORTATION INFORMATION**

UN Identification Number:

Not classified as hazardous material for transport.



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