

SAFETY DATA SHEET

Preparation Date Dec. 3, 2015

Revision Date Feb. 7, 2022

1. Identification of the Substance/Preparation and of the Company

Product identifier

Product Description:	Nasa Herbicide
Synonyms	glyphosate, IPA salt, N-phosphonomethylglycine, IPA salt
US EPA Registration number	87845-2

Recommended use of the chemical and restrictions on use

Recommended use	Herbicide
Uses advised against	Use contrary to label directions

Supplier of this Safety Data Sheet

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EMERGENCY PHONE NUMBER (CHEMTREC) 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

(OSHA Hazard Communication Standard (29 CFR 1910.1200))

Acute toxicity oral	Category 4
Acute toxicity - Dermal	Category 4
Eye irritancy	Category 2B

Environmental Hazards

Moderately toxic to aquatic organisms

Physical Hazards

Avoid contact with galvanized metal

Label elements

CAUTION

Hazard statements

Causes moderate eye irritation. Do not get in eyes, on skin, or on clothing.

Precautionary Statements - Prevention

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

Applicators and other handlers must wear long sleeved shirt and long pants, shoes socks, and protective eyewear. Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Precautionary Statements - Response

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a Poison Control Center or doctor for treatment advice.

If medical advice is needed, have container and /or booklet label at hand.

Precautionary Statements - Storage

Store out of reach of children and domestic animals

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. Composition / information on ingredients

Chemical Name	% w/w	CAS No.	Trade secret
glyphosate, IPA salt	41 %	38641-94-02	N
tallow amine ethoxylates	12 %	61791-26-2	N
water	remainder		

4. FIRST AID MEASURES

IF IN EYES:

- Hold eye open and rinse slowly and gently with water or 15 to 20 minutes.
- Remove contact lenses, if present, after the first minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

If medical advice is needed, have container and /or booklet label at hand.

5. FIRE FIGHTING MEASURES

Non-flammable (aqueous) product

EXTINGUISHING MEDIA: For surrounding fires, any fire extinguishing media (water, foam, dry chemical, CO2) may be used based on other products that might be present.

Decomposition Products

Carbon dioxide, carbon monoxide, nitrogen oxides.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL:

Large spill: Dyke around spill as necessary. If wet, absorb product with a clay-based absorbent. Remove dry product, absorbent and contaminated soil for disposal in accordance with applicable local regulations.

Small spill: Remove contaminated soil and place in containers for disposal in accordance with applicable local regulations.

Avoid contamination of water bodies during cleanup and disposal. Personal protective equipment is **not** needed to cleanup land spills.

SPILLAGE ONTO HARD SURFACES: Limit area of spillage by barricading if necessary. Absorb product with a clay-based absorbent. Sweep up or vacuum, and place product into containers for disposal in accordance with applicable local regulations. Clean surface with water.

SPILLAGE INTO WATER: Where possible, remove any intact containers from the water. Advise local water authority that none of the affected water should be used for irrigation or for the abstraction of potable water until natural dilution returns the glyphosate value to a negligible level.

IN ALL CASES

Wear protective equipment as needed (see section 8).

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Keep out of reach of children. Wear protective gloves/clothing and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a cool, well-ventilated place.

Incompatible materials Strong oxidizing agents, galvanized steel.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS: NONE ESTABLISHED

ENGINEERING CONTROLS: Enclosed Cockpits: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)].

Mechanical Flagging Engineering Controls: Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

PERSONAL PROTECTION:

Personal protective equipment

Eye/Face Protection Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields. If splashes are likely to occur, wear goggles.

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance:	Amber liquid
Odor:	Sweet
Density:	1.2 g/ml
Vapor Pressure (mm/Hg):	Negligible @ 20°C
Solubility in Water:	miscible
Melting Point:	Not applicable
pH @ 20°C:	4.4 - 5.0

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY (Conditions to avoid): Stable under normal conditions. Avoid extreme heat (>120°F)

INCOMPATIBILITY: Strong acids, strong oxidizing agents, galvanized metal.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, nitrogen oxides

HAZARDOUS POLYMERIZATION: Will not occur

11. TOXICOLOGICAL INFORMATION

The following information is available for the formulation:

INGESTION:	Oral LD ₅₀ (rat)	>2000 mg/kg
DERMAL:	Dermal LD ₅₀ (rat)	>2000 mg/kg
INHALATION:	Inhalation LC50 (rat)	> 2.5 mg / L
SENSITIZATION:	Skin sensitization (guinea pig)	non-sensitizer
IRRITATION:	Primary eye irritation (rat)	moderate reversible irritation
	Primary skin irritation (rat)	non irritant

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA

General: Nasa herbicide is moderately toxic to aquatic organisms.

Environmental fate: Glyphosate is rapidly degraded in soil (DT50 2 - 170 days), and is not mobile in soil.

Fish toxicity (96 hr LC50)

Rainbow trout: 5.4 mg/L
 Bluegill 7.3 mg/L

Bird toxicity (dietary LC50)

bobwhite quail > 4000 mg/Kg
 mallard duck > 4000 mg/Kg

Bee Toxicity Contact LD50 > 100 mg / bee

13. DISPOSAL CONSIDERATIONS

Product

Excess product may be disposed of by agricultural use according to label instructions.
 Keep out of drains, sewers, ditches and water ways.
 Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.
 Follow all local/regional/national/international regulations.

Contaminated packaging Refer to product label.

14. TRANSPORTATION INFORMATION

DOT / TDG When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated.

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Glyphosate)
 UN Number 3082
 Class 9, PG III

Classification for SEA transport (IMO-IMDG): Proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Glyphosate)

UN number

UN 3082

Class

9

Packing group

III

Marine pollutant Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Glyphosate Consult IMO regulations before transporting ocean bulk
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15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: 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:

signal word WARNING
Ventilation Control PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.
Keep out of Reach of Children. Harmful if inhaled or absorbed through skin. Harmful if swallowed. May irritate eyes, nose, throat and skin.

OSHA/Cal OSHA: This SDS document meets the requirements of both OSHA (29 CFR 1910.1200 and Cal OSHA (Title 8 CCR 5194 (g)) hazard communication standards. Refer to Sections 2 and 8 for regulatory exposure limits.

CHEMICAL INVENTORY LISTING: Glyphosate appears on several chemical inventory lists (including the EPA TSCA inventory, Canadian DSL, European EINECS, Japanese MITI, Australian and Korean lists) under the CAS No. 99129-21-2

SARA TITLE III DATA

Sections 311 & 312 Hazard Categories

Health Hazard: Immediate, Delayed Health Effects, Fire Hazard

Section 302 Extremely Hazardous Substances: None

Section 313 Toxic Chemicals: none

CERCLA/EHS Reportable Quantities (RQ):

NA

STATE REGULATIONS:

CALIFORNIA (Proposition 65): not listed

CANADA:

Hazardous Products Act Information: CPR Compliance

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Hazardous Products Act Information: WHMIS Classification

This product is exempt under WHMIS.

National Fire Code of Canada

Not applicable

Canadian Domestic Substances List (DSL) (DSL)

This product contains chemical substance(s) exempt from CEPA DSL Inventory requirements. It is regulated as a pesticide subject to Pest Control Products Act (PCPA) requirements.

16. OTHER INFORMATION

SDS Status:

Date of this Revision: Feb. 7, 2022

Date of Previous Revision: NA

**Person Responsible for Preparation: Don O'Shaughnessy, Ph.D., DABT, President
DOC Inc.**

Reasons for Revision: Change of address of registrant

DISCLAIMER:

This information is provided for the limited guidance to the user. While Agromarketing Company, Inc. believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

ABBREVIATIONS:

a.i.	-	Active ingredient
ACGIH	-	American Conference of Governmental Industrial Hygienists
CERCLA	-	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	-	Environmental Protection Agency
FIFRA	-	Federal Insecticide, Fungicide, and Rodenticide Act
IARC	-	International Agency for Research on Cancer
NTP	-	National Toxicology Program
SARA	-	Superfund Amendments and Reauthorization Act
TSCA	-	Toxic Substances Control Act
DOT	-	Department of Transportation
IMDG	-	International Maritime Dangerous Goods
IATA	-	International Air Transport Association

This is the last page of this SDS. There should be 6 pages.