



MATERIAL SAFETY DATA SHEET

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Eagre

Date Prepared: May 21, 2001

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

Product Name: Eagre

HAZARD CLASSIFICATION (0-minimal, 1-slight, 2-moderate, 3-serious, 4-severe)

NFPA: HEALTH-1 FIRE-1 REACTIVITY-0

HMIS: HEALTH-1 FIRE-1 REACTIVITY-0

MANUFACTURER NAME AND ADDRESS

Griffin L.L.C.	Griffin (Europe) S.A.	Griffin FE (Malaysia) S/B
2509 Rocky Ford Road	c/o Minervastraat 8	P.O. Box 6506
P.O. Box 1847	B-1930 Zaventem	47300 KG Tunku
Valdosta, GA 31603-1847	Belgium	Petaling Jaya
		Malaysia

EMERGENCY TELEPHONE NUMBERS

Griffin L.L.C. (USA): (+1) (800) 237 1854

Griffin (Europe) S.A.: (+32)-2-720 6644

Griffin FE (Malaysia) S/B: (+60)-3-757 4773

Chemtrec: (+1) (800) 424 9300

Prosar: (+1)(888)324 7598

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Component Name	% by Wt.	CAS#	ACGIH (TLV)	OSHA (PEL)
Glyphosate IPA Salt	53.8	38641-94-0	not established	not established
Inert Ingredients	46.2			

Components not precisely identified are proprietary or not hazardous.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Caution! Causes eye irritation. Harmful if swallowed or inhaled. May cause skin irritation.

POTENTIAL HEALTH EFFECTS

Inhalation: Occupational exposure to this product has been reported to cause respiratory tract irritation. Symptoms include coughing, sneezing, wheezing, and blood-tinged mucous.

Eye Irritation: Direct contact may cause temporary eye irritation and conjunctivitis.

Skin Absorption: Prolonged contact may cause skin irritation.

Hazards Identification continued:

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Ingestion: Ingestion has been reported to produce gastrointestinal discomfort with irritation of the mouth, nausea, vomiting, and diarrhea. Oral ingestion of large quantities of concentrated product has been reported to result in hypertension and pulmonary edema.

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air. If not breathing, give artificial respiration preferably mouth-to-mouth. Get medical attention.

Eye Contact: Hold eyelids open and flush with water at least 15-20 minutes until no evidence of chemical remains. Get professional medical attention immediately.

Skin Contact: Remove contaminated clothing and shoes. Wash with plenty of soap and water for 15-20 minutes until no evidence of chemical remains. Get professional medical attention immediately.

Ingestion: This material will produce gastrointestinal irritation. Immediately dilute by swallowing water or milk. Do not attempt to give anything by mouth to an unconscious person. Get professional medical attention immediately.

5. FIRE FIGHTING MEASURES

Flash Point & Method: > 200° F - tag closed cup
Flammable Limits: Not applicable.
Autoignition Temperature: Not applicable.

FIRE FIGHTING HAZARDS & PROCEDURES

Extinguishing Media: Use dry chemical, carbon dioxide, water spray or foam.
Fire Fighting Instructions: Firefighters or others who may be exposed to vapors or products of combustion should wear full protective clothing and self-contained breathing apparatus. Equipment should be thoroughly cleaned after each use.

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Liquid spills on the floor or other impervious surfaces should be contained or diked, and should be absorbed with attapulgate, bentonite, or other absorbent clays.

Accidental Release Measures continued:

Spill or leak procedures: Collect contaminated absorbent, place in plastic-lined metal drum, and dispose of in accordance with instructions provided under DISPOSAL. Thoroughly



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scrub floor with a strong industrial type detergent solution and rinse with warm water.
Liquid spills that soak into the ground should be dug-up, placed in plastic-lined metal drums, and disposed of in accordance with instructions provided under DISPOSAL. Leaking containers should be separated from non-leakers and either the container or its contents transferred to a plastic-lined drum or to the non-leaking container. Dispose of leaking container in accordance with instructions provided under DISPOSAL. Any received spilled liquid should be similarly collected and disposed of.

7. HANDLING AND STORAGE

General Information: Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or spray mist. Use with adequate ventilation. Keep container closed. Wash thoroughly after handling. Avoid contamination of seed, feed, or foodstuffs.

Storage: Store above 10° F (-12° C) to keep from crystallizing. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room at 68° F (20° C) for several days to re-dissolve and mix well before using. Do not contaminate water, foodstuffs, feed, or seed by storage or disposal.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

PESTICIDE APPLICATORS & WORKERS

These 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.

MANUFACTURING, COMMERCIAL BLENDING, & PACKAGING WORKERS

Ventilation: No special precautions are recommended.

Respiratory Protection: Respiratory protection should not be required for normal use and handling. During periods of abnormal exposure to heavy spray or mist, use NIOSH/MSHA approved equipment for pesticide vapor/mist is recommended. The respirator use limitations specified by NIOSH/MSHA or the manufacturer must be observed.

Exposure Control / Personal Protection continued:

Eye Protection: Wear chemical safety goggles during mixing/pouring operations or other activities in which eye contact with undiluted material is likely to occur.



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Protective Clothing:	In cases in which prolonged or repeated skin contact with this material may occur, long-sleeved shirt, long pants, and chemical protective (e.g. rubber) gloves are recommended. Wash hands and contaminated skin after handling. Clothing soaked with a solution of this material should be promptly removed and laundered before reuse.
Airborne Exposure Limits:	See Section 2

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific Gravity (water = 1):	1.22 – 1.25 (water = 1)
pH:	4.6 – 4.8
Odor:	Odorless to slight amine-like odor
Color:	Clear to Amber
Physical State:	Viscous Solution

10. STABILITY AND REACTIVITY

General:	This material is stable for at least five years under normal conditions of warehouse storage. Heated facilities are not required.
Incompatible Materials:	Spray solutions of this product should be mixed, stored, or applied only in stainless steel, aluminum, fiberglass, plastic, and plastic-lined containers. DO NOT MIX, STORE, OR APPLY THIS PRODUCT, OR SPRAY SOLUTIONS OF THIS PRODUCT, IN GALVANIZED OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product, or spray solutions of this product react with such containers and tanks to produce hydrogen gas, which may form a highly combustible gas mixture. 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.
Hazardous Decomposition:	None determined
Hazardous Polymerization:	Material is not known to polymerize. This product can react with caustic (basic) materials to liberate heat. This is not a polymerization, but rather a chemical neutralization in an acid-base reaction.

11. TOXICOLOGICAL INFORMATION

ACUTE

Inhalation:	Slightly toxic LC ₅₀ > 1.3 mg/L (rat).
Eye Irritation:	Slightly irritating.
Skin Irritation:	Slightly irritating (rabbit – 4-hour exposure).
Skin Absorption:	Practically non-toxic (rabbit LD ₅₀ : >5000 mg/kg).



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Ingestion: Slightly toxic to practically non-toxic (rat LD₅₀: > 5000 mg/kg).

In repeat dosing studies (6-months), dogs fed this material exhibited slight body weight changes. Following repeated skin exposure (3-weeks), skin irritation was the only effect in rabbits. No skin allergy was observed in guinea pigs following repeated skin exposure.

Additional toxicity information is available on glyphosate, the active herbicidal ingredient of this material. Following repeated exposures (90-days) to glyphosate in their feed, decreased weight gains were noted at the highest test level in mice, while no treatment-related effects occurred in rats. Following repeated skin exposure (3-weeks) to glyphosate, slight skin irritation was the primary effect observed in rabbits. No skin allergy was observed in guinea pigs following repeated skin exposure. There was no evidence of effects on the nervous system, including delayed effects in chickens (repeat oral doses) or cholinesterase inhibition in rats (single oral doses). Reduced body weight gain and effects on liver tissues were observed with long-term (2-year) feeding of glyphosate to mice at high-dose levels. Reduced body weight gain and eye changes were observed at the high-dose level in one long-term (2-year) feeding study with rats, while no treatment-related effects occurred in a second study. No adverse effects were observed in feeding studies with dogs. Glyphosate did not produce tumors in any of these studies. Based on the results from the chronic studies, EPA has classified glyphosate in category E (evidence of non-carcinogenicity for humans). No birth defects were noted in rats and rabbits given glyphosate orally during pregnancy, even at amounts which produced adverse effects on the mothers. Glyphosate was fed continuously to rats at very high dose levels for 2 successive generations. Toxicity was reported in offspring from the high dose, a level which also produced adverse effects on the mothers. In a 3 generation study conducted at lower dose levels, no effects were seen on the ability of male or female rats to reproduce. Glyphosate has produced no genetic changes in a variety of standard tests using animals and animal or bacterial cells.

12. ECOLOGICAL INFORMATION

96-hour LC ₅₀ Bluegill Sunfish:	> 1000 mg/L (practically non-toxic)
48-hour EC ₅₀ <i>Daphnia magna</i> :	930 mg/L (practically non-toxic)
96-hour LC ₅₀ Rainbow Trout:	> 1000 (practically non-toxic)
Oral LD ₅₀ Goat:	5700 mg/kg (practically non-toxic)



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Ecological Information continued:

Brahman-cross heifers were given this material by gavage, a daily dosages of 0, 540, 830, 1290, and 2000 mg/kg for 7 consecutive days. Clinical signs of toxicity, including loss of appetite, diarrhea, and death (1280 and 2000 mg/kg) were observed at 830 mg/kg or above. The no-effect level was considered to be 540 mg/kg/day.

13. DISPOSAL CONSIDERATIONS

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal in accordance with applicable Federal, State, or Local procedures.

An empty container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed. DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER. Do not reuse containers. Triple rinse container, then puncture and dispose of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

Department of Transportation (DOT):	Not Regulated
International Air Transport Association (IATA):	Not Regulated
International Maritime Organization (IMO):	Not Regulated

15. REGULATORY INFORMATION

OSHA:	This product is considered hazardous under the OSHA Hazardous Communication Standard (29 CFR §1910.1200).
TSCA:	All product components are on the TSCA Chemical Inventory.
CERCLA:	Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to the state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.
RCRA:	When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR §261.33.

Regulatory Information continued:

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SARA TITLE III

302: Not listed

311/312 Hazard Categories: This product has been reviewed according to the EPA "Hazard Categories" relating to SARA Title III, and is categorized as an acute health hazard (40 CFR §370.41).

313 Reportable Ingredients: This product does not contain any material listed in Section 313 above de minimis concentrations (40 CFR §372).

16. OTHER INFORMATION

REVISION SUMMARY

This Material Safety Data Sheet has been prepared using the standard Griffin L.L.C. ANSI Z400.1 compliant format.

The information in this Material Safety Data Sheet relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. It is the users' responsibility to satisfy themselves as to the suitability and completeness of this information for their own particular use.