MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:
ALBAUGH, INC.
Ankeny, IA 50021

EMERGENCY TELEPHONE NUMBERS:
(800) 424-9300 (CHEMTREC, transportation and spills)

PRODUCT NAME : **TRIFLURALIN 10G**
CHEMICAL NAME : a,a,a-trifluoro-2,6-dinitro-N,N-dipropyl-p-toluidine
CHEMICAL FAMILY : Dinitroanaline herbicide
PRODUCT CODE : EPA Reg. No. 42750-34

SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Trifluralin	10.0 %	1582-09-8	Not Established	Not Established
Inert Ingredients	90.0 %	n/a	Not Established	Not Established

SECTION 3 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

HEALTH HAZARDS: Moderate eye irritant.
PHYSICAL HAZARDS: May release toxic fumes if burned.
ENVIRONMENTAL HAZARDS: Highly toxic to many aquatic organisms.

SECTION 4 - FIRST AID MEASURES

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 eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED: 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 the poison control center or doctor.
IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN: Contains a petroleum distillate solvent, vomiting may cause aspiration pneumonia and may contraindicate the use of gastric lavage.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 - FIRE FIGHTING MEASURES

FLASHPOINT (method): 200 F (closed cup)
FLAMMABLE LIMITS (LFL-UFL): Unknown.
FIRE AND EXPLOSION HAZARD: Can form explosive mixtures at temperatures at or above the flashpoint. Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.
EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.
FIRE FIGHTING INSTRUCTIONS: Evacuate nonessential persons from area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water run off.
FIRE FIGHTING EQUIPMENT: Full fire fighting turn-out gear (Bunker gear) including self-contained breathing equipment.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of nitrogen and carbon, fluorinated hydrocarbons.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Vacuum or sweep up material and place in a container for reuse or disposal. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container. This material prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Do not reuse this container.
STORAGE: Keep container closed when not in use. Keep away from food, feed and drinking water. Store in a well ventilated, dry place away from excess heat.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS (8 HOUR TWA): (Refer to Section 3)

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:
EYE PROTECTION - Safety glasses or goggles.
CLOTHING - Long-sleeved shirt and long pants, Shoes plus socks,
GLOVES - Chemical-resistant gloves such as barrier laminate or viton.
RESPIRATOR - When handling in enclosed areas where exposure limits may be exceeded, use a respirator approved for pesticides.

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.

USER SAFETY RECOMMENDATIONS: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION: Yellow, brown granules.
ODOR: Slight aromatic
BULK DENSITY: 40 – 45 lbs/cuft
pH: 5.0 – 8.0
VAPOR PRESSURE: Unknown
WATER SOLUBILITY: Not soluble.

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal storage conditions.
CONDITIONS TO AVOID: Avoid temperatures above 100°F (38°C).
INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen and carbon, fluorinated hydrocarbons.
HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral LD_{50} (rat)	- > 5,000 mg/Kg
Dermal LD_{50} (rat)	- > 5,000 mg/Kg
Inhalation LC_{50} (rat)	- > 3.0 mg/L (4 hour)
Eye Irritation (rabbit)	- Moderate
Skin Irritation (rabbit)	- Moderate
Sensitization (guinea pig)	- Potential sensitizer

CARCINOGEN STATUS:

OSHA	-	Not listed.
NTP	-	Not listed.
IARC	-	Not listed.

MUTAGENIC DATA: No evidence of mutagenic effects during *in vivo* or *in vitro* studies.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

FISH TOXICITY: (Technical)
96 hour LC_{50}, Rainbow trout – 0.02 mg/L
96 hour LC_{50}, Bluegill – 0.05 mg/L

AVIAN TOXICITY: (Technical)
Dietary LD_{50}, Bobwhite quail - >2,000 mg/Kg
Dietary LD_{50}, Mallard duck - >2,000 mg/Kg

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE: Pesticide wastes are acutely hazardous. Dispose of in accordance with applicable Federal, state and local laws and regulations.
CONTAINER: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION:

Containers < 100 lb net contents:	Not regulated
Containers ≥ 100 lb net contents:	UN3077, Environmentally Hazardous Substance, Solid, N.O.S., 9, PG III, RQ (trifluralin)
DOT HAZARD CLASS:	9 (≥ 100 lbs)
IDENTIFICATION NUMBER:	UN3082
DOT PACKING GROUP:	PG III
DOT PRIMARY/SECONDARY LABEL:	N/A

DOT PRIMARY/SECONDARY PLACARD: Class 9
DOT EMERGENCY RESPONSE GUIDE #: 171

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Trifluralin RQ 10 lbs (100 lbs of product)
SARA TITLE III STATUS:
311/312 Hazard Categories: Immediate & Delayed Health
313 Toxic Chemicals: Trifluralin

SECTION 16 - OTHER INFORMATION

HMIS HAZARD RATINGS	HEALTH	2
	FLAMMABILITY	0
	PHYSICAL HAZARD	1
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

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REVISED DATE: October, 2008
REVISED FOR: Corrected UN number in DOT description in Section 14