SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION

Product Identifier : **EDITION™ Tank Mix**
EPA Reg. No. : **67760-90**
Product Use : Herbicide

Supplier's name and address:

Cheminova, Inc.
One Park Drive, Suite 150
PO Box 110566
Research Triangle Park, NC, USA
27709
Phone #: (919) 474-6600 (8:00 AM to 5:00 PM EST, Monday to Friday)

Manufacturer's name and address:

Cheminova A/S
PO Box 9
DK-7620
Lemvig, Denmark

Emergency Telephone #: 1-866-303-6950 (Medical Emergencies)
1-800-424-9300 (24 Hr. Chemtrec Number)

SDS Prepared by: Cheminova Inc.
SDS Preparation date: July 9, 2008
Revision date: May 1, 2015
Revision reason: GHS Revision

SECTION 2 – HAZARDS IDENTIFICATION

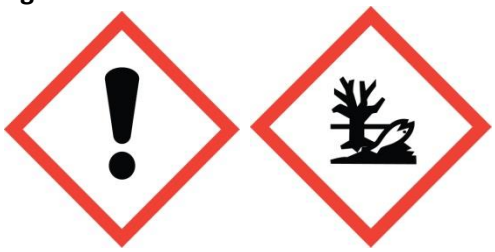
GHS Signal Word:

Warning

Classification:

Health	Environmental	Physical
Skin Irritation – Category 2 Eye Irritation – Category 2B	Aquatic Toxicity – Acute 1 Aquatic Toxicity – Chronic 1	Not applicable

GHS Pictogram:



Hazard Statements:

Causes skin irritation.
Causes eye irritation.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

Wash hands thoroughly after handling.
Wear protective gloves.
Avoid release to the environment.

Response:

If on skin: Wash with plenty of water.
For specific treatment, refer to product label.

If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
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.
Collect spillage.

Storage:

Not applicable.

Disposal:

Dispose of contents/container according to label directions.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (weight)	ACGIH TLV		OSHA PEL	
			TWA	STEL	PEL	STEL
Thifensulfuron-Methyl Technical (Methyl 3-[[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino]carbonyl]amino]sulfonyl]-2-thiophenecaroxylate)	79277-27-3	30.00 – 60.00	N/Av	N/Av	N/Av	N/Av
Tribenuron Methyl Technical (Methyl 2-[[[[(N-(4-methoxy-6-methyl-1,3,5-triazin-2-yl) Methylamino] carbonyl]amino]sulfonyl] benzoate	101200-48-0	7.00 – 13.00	N/Av	N/Av	N/Av	N/Av
Calcium carbonate	1317-65-3	0.00 – 1.00	10 mg/m^3	N/Av	15 mg/m^3 (total dust); 5 mg/m^3 (respirable fraction)	N/Av
Sulfonated aromatic hydrocarbon	N/Av	0.00 – 5.00	N/Av	N/Av	N/Av	N/Av
Sulfonated aromatic polymer	N/Av	0.00 – 5.00	N/Av	N/Av	N/Av	N/Av

N/Av = Not available

SECTION 4 – FIRST AID MEASURES

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.

IF SWALLOWED:
- Call a poison control center or doctor immediately for treatment advice.
- Have a 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.

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 INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-303-6950 for emergency medical treatment information.

Signs and symptoms of short-term (acute) exposure

Inhalation : Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. May cause irritation of respiratory tract.

Skin : May cause mild skin irritation. Symptoms may include redness, itching and swelling. Prolonged contact, such as when trapped against the skin under clothing or jewelry, may be more irritating.

Eyes : May cause mild eye irritation. Inert particles may cause mechanical irritation of the eyes, including scratches.

Ingestion : Harmful if swallowed. May cause irritation of mouth, throat, and stomach. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.

Effects of long-term (chronic) exposure

: Repeated ingestion may cause severe weight loss.

Conditions aggravated by overexposure

: Pre-existing skin, eye, respiratory and central nervous system disorders.

SECTION 5 – FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

: Not flammable under normal conditions of use. However, may ignite if exposed to extreme heat and flame. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Fine dust dispersed in air may ignite.

Flammability classification (OSHA 29 CFR 1910.1200)

: Non-flammable.

Oxidizing properties : None known

Explosion data: Sensitivity to mechanical impact / static discharge

: Not expected to be sensitive to mechanical impact or static discharge.

Suitable extinguishing media

: Dry chemical, foam, carbon dioxide and water fog. Do not use water jet, as this may spread burning material.

Special fire-fighting procedures/equipment

: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. Avoid spreading burning solid with water spray used for cooling purposes.

Hazardous combustion products

: Carbon oxides; sulfur oxides; nitrogen oxides (NOx); calcium oxide; irritating fumes and smoke.

NFPA Rating :

0 – Minimal	1 – Slight	2 – Moderate	3 – Serious	4 – Severe
Health: 1	*Flammability:* 1	*Instability:* 0	*Special Hazards:*	None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to Section 8, EXPOSURE CONTROLS

AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

Spill response/cleanup : Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Contain and absorb spilled material with inert, non-combustible absorbent material, such as sand. Sweep up and shovel into suitable containers for disposal. For a water spill, confine the spill immediately with booms. Notify the appropriate authorities as required.

Prohibited materials : None known.

Special spill response procedures

: In case of a transportation accident, in the United States contact CHEMTREC at 1-800-424-9300 or International at 1-703-527-3887.
If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002)
US CERCLA Reportable quantity (RQ): None.

SECTION 7 – HANDLING AND STORAGE

Safe handling procedures : This material is a harmful solid. Wear chemically resistant protective equipment during handling. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Do not breathe vapors/dust. Keep away from heat and flame. Avoid contact with incompatible materials. Use caution when opening cap. Keep containers tightly closed when not in use. Wash thoroughly after handling.

Storage requirements : Store in a cool, dry, well ventilated area. Keep way from incompatibles. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Incompatible materials : Strong oxidizing agents; Acids.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering measures

: Provide sufficient ventilation to keep vapor concentration below the given TLV and/or PEL.

Respiratory protection : Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Seek advice from respiratory protection specialists.

Skin protection : Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.

Eye / face protection : Safety glasses with side-shields or chemical splash goggles.

Other protective equipment

: Wear resistant clothing and boots. An eyewash station and safety shower should be made available in the immediate working area.

General hygiene considerations

: Avoid breathing vapors, fumes or dust. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with

this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse. Do not take contaminated clothing home.

Permissible exposure levels: For individual ingredient exposure levels, see Section 2.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light brown solid (granules).
Odor: Faint
Odor threshold: ND
pH: 5.27
Melting point/Freezing point: **Thifensulfuron-methyl:** 171° C
Tribenuron-methyl: 142° C
Initial boiling point and boiling range: **Thifensulfuron-methyl:** decomposes before boiling
Tribenuron-methyl: decomposes before boiling
Flash point: NA
Evaporation rate: NA
Flammability: NA
Upper/lower flammability and explosive limits: NA
Vapor pressure: **Thifensulfuron-methyl:** 5.19×10^{-06} mPa @ 25° C
Tribenuron-methyl: 5.30×10^{-05} mPa @ 25° C
Vapor density: NA
Bulk density: 5.18 – 5.38 lb/gal
Specific gravity: 0.621 – 0.645 g/cm^3

Solubility(ies):

	Thifensulfuron-methyl:		Tribenuron-methyl:	
In water @ 20° C	2240	mg/l	2040	mg/l
Acetone	1900	mg/l	39100	mg/l
Ethanol	900	mg/l	----	
Ethyl acetate	2600	mg/l	16300	mg/l
Methanol	2600	mg/l	----	
n-Heptane	----		20800	mg/l
Dichloromethane	----		250000	mg/l

Partition coefficient (n-octanol/water): **Thifensulfuron-methyl:** Log P = -1.65
Tribenuron-methyl: Log P = 0.78
Auto-ignition temperature: NA
Decomposition temperature: ND
Viscosity: ND

ND=Not determined
NA=Not applicable

SECTION 10 – STABILITY AND REACTIVITY

Stability and reactivity : Stable under the recommended storage and handling conditions prescribed.
Hazardous polymerization : Will not occur.
Conditions to avoid : Keep this product away from heat, sparks, flame, and other sources of ignition (e.g. pilot lights, electric motors, static electricity).

Materials to avoid and incompatibility
: Incompatible materials (see Section 7).

Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

Target organs : Eyes, skin, respiratory system, digestive system, central nervous system.

Routes of exposure : *Inhalation:* YES *Skin absorption:* YES *Skin & Eyes:* YES *Ingestion:* YES

Toxicological data : LD50 Oral (rat): >2000 mg/kg
LD50 Dermal (rat): >2000 mg/kg
LC50 Inhalation (rat): >5.01 mg/L/4 Hrs

Carcinogenic status : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects : Not expected to have other reproductive effects.

Teratogenicity : Not expected to be a teratogen.

Mutagenicity : Not expected to be mutagenic in humans.

Epidemiology : Not available.

Sensitization to material : Not expected to be a skin or respiratory sensitizer.

Synergistic materials : Not available.

Irritancy : May cause eye and skin irritation. May cause irritation to upper respiratory system.

Other important hazards : None known.

SECTION 12 – ECOLOGICAL INFORMATION

Environmental effects : The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. This product is an herbicide. The active ingredients area: Tribenuron-methyl Technical; Thifensulfuron-methyl Technical. The active ingredients are considered to be toxic to many plants, and non-toxic to fish, aquatic invertebrates, soil micro- and macro-organisms, birds, mammals and insects.

Important environmental characteristics

: The active ingredients are: Tribenuron-methyl Technical; Thifensulfuron-methyl Technical.
The active ingredients are not persistent in the environment.
Under normal conditions, the active ingredients are mobile in the environment.
The active ingredients are not expected to bioaccumulate.

Ecotoxicity : The active ingredients are: Tribenuron-methyl Technical; Thifensulfuron-methyl Technical. The toxicity of the active ingredients to wildlife species is measured to be:

Thifensulfuron-methyl Technical:

Fish – 96-Hr LC50, Rainbow Trout (*Salmo gairdneri*) = >100 mg/L
Invertebrates – 48-hr EC50, Daphnids (*Daphnia magna*) = 470 mg/L
Bees –LD50, oral, Bees (*Apis mellifera*) = >7.1 µg/bee
Plants –EC50, Duckweed (*Lemna minor*) = 1.3 µg/L
Algae – 72-Hr IC50, Green Algae (*Selenastrum capricornutum)* = 0.0159 mg/L

Tribenuron-methyl Technical:

Fish – 96-Hr LC50, Rainbow Trout (*Salmo gairdneri*) = >1000 mg/L

Invertebrates – 48-hr EC50, Daphnids (*Daphnia magna*) = 720 mg/L
Bees –LD50, topical, Bees (*Apis mellifera*) = >100 µg/bee
Plants –14-day EC50, Duckweed (*Lemna minor*) = 9.9 µg/L
Algae – 72-Hr IC50, Green Algae (*Selenastrum capricornutum)* = 8.0 mg/L

SECTION 13 – DISPOSAL CONSIDERATIONS

Handling for disposal : Handle wastes according to recommendations in Section 7.

Methods for disposal : Do not contaminate water, foodstuffs, feed or seed by storage or disposal. For disposable containers, triple rinse (or equivalent) containers and add rinse material to disposal tank. Follow any additional local, state or federal requirements for cleaning containers prior to disposal. Make the empty, rinsed container unsuitable for further use by puncturing. Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 – TRANSPORT INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	None	Not regulated.	Not regulated	none	
49CFR/DOT Additional information	None.				
TDG	None	Not regulated.	Not regulated	none	
TDG Additional information	None.				

SECTION 15 – REGULATORY INFORMATION

US Federal Information:

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 on safety data sheets, and for workplace labels on non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION
Harmful if absorbed through skin.
Harmful if swallowed.
Causes moderate eye irritation.

Avoid contact with eyes, skin or clothing.
Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.
Remove and wash contaminated clothing before reuse.

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) Health Hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: Tribenuron-methyl Technical

US State Right to Know Laws:
California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

International Information:
No information available.

SECTION 16 – OTHER INFORMATION

HMIS Rating : *-Chronic Hazard 0 – Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe

Health:	1	*Flammability:*	1	*Reactivity:*	0

Prepared by: Cheminova Inc.
Telephone #: (919) 474-6600 (8:00 AM to 5:00 PM EST, Monday to Friday)
SDS preparation date: July 7, 2008
Revision date: May 1, 2015
Revision reason: US GHS Revision