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## Material Safety Data Sheet

# Total N 36

This version issued October 2012 and is valid 5 years from this date

6 Pages

<b>Section 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION</b>
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- 1.1 Product Name** ..... **Total N 36 (Urea-Triazone fertilizer)**  
Chemical Family ..... Aqueous, organic salt solution  
Synonyms ..... Total N 36, Triazone  
Formula ..... N/A - blend
- 1.2 Manufacturer** ..... **Tessenderlo Kerley Inc.**  
2255 N. 44<sup>th</sup> Street, Suite 300  
Phoenix, Arizona 85008-3279  
Information ..... 0011 1(602) 889-8300
- 1.3 Emergency Contact** ..... **131 126 (Poisons Information Centre)**  
1800 440 438 (Growth Agriculture)

<b>Section 2: COMPOSITION, INFORMATION ON INGREDIENTS</b>
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**2.1 Chemical Ingredients (% by volume.)**

Total N 36 (36-0-0) is a proprietary blend of urea (CAS # 57-13-6), Triazone (CAS # 7098-14-8) and water (CAS # 7732-18-5)  
(See Section 8 for exposure guidelines)

<b>Section 3: HAZARDS IDENTIFICATION</b>
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**NFPA: Health - 1 Flammability - 0 Reactivity - 0**

### EMERGENCY OVERVIEW

Contact with solution or mist may cause eye irritation.  
Repeated/prolonged skin contact with solution or mist may cause irritation.  
Ingestion may irritate gastrointestinal tract.  
Excessive heating may cause ammonia gas to evolve.

# MATERIAL SAFETY DATA SHEET

<b>Section</b>	<b>3:</b>	<b>HAZARDS IDENTIFICATION (Cont.)</b>
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## 3.1 POTENTIAL HEALTH EFFECTS

**EYE:** Contact with the eyes by product mist or solution may cause irritation or a burning sensation.

**SKIN CONTACT:** Prolonged or repeated contact with product mist or solution may cause skin irritation.

**SKIN ABSORPTION:** Absorption is unlikely to occur.

**INGESTION:** Ingestion of product solution may cause irritation of the gastrointestinal tract to include nausea, vomiting and diarrhea. These blends are considered to have a low toxicity to humans.

**INHALATION:** Inhalation of product mist may cause irritation of the nose, throat and respiratory tract.

**CHRONIC EFFECTS/CARCINOGENICITY:** Not listed as a carcinogen by NTP, IARC or OSHA.

<b>Section</b>	<b>4:</b>	<b>FIRST AID MEASURES</b>
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**4.1 EYES:** Immediately flush with large quantities of water for 15 minutes. Hold eyelids apart during irrigation to insure thorough flushing of the entire area of the eye and lids. Obtain medical attention.

**4.2 SKIN:** Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Obtain medical attention if irritation occurs.

**4.3 INGESTION:** If victim is conscious, give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat. Obtain medical attention.

**4.4 INHALATION:** Remove victim from contaminated atmosphere. If breathing is labored, administer oxygen. If breathing has ceased, clear airway and start mouth to mouth resuscitation. If heart has stopped beating, external heart massage should be applied. Obtain medical attention.

<b>Section</b>	<b>5:</b>	<b>FIRE FIGHTING MEASURES</b>
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## 5.1 FLAMMABLE PROPERTIES

**FLASH POINT:** Not flammable

**METHOD USED:** COC and TCC

## 5.2 FLAMMABLE LIMITS

**LFL:** NA

**UFL:** NA

**5.3 EXTINGUISHING MEDIA:** As appropriate for combustibles involved in fire.

**5.4 FIRE & EXPLOSIVE HAZARDS:** Heating to dryness may cause the release of ammonia and carbon dioxide. Ammonia, NH<sub>3</sub>, (16-25%) may form flammable mixtures with air.

Keep containers/storage vessels in fire area cooled with water spray. Heating may cause the release of ammonia vapors.

# MATERIAL SAFETY DATA SHEET

## Section 5: FIRE FIGHTING MEASURES (Cont.)

**5.5 FIRE FIGHTING EQUIPMENT:** As in any fire, wear self-contained breathing apparatus, pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

**6.1 Small releases:** Confine and absorb small releases on sand earth or other inert absorbent. Use water spray to dilute to weak fertilizer solution.

**6.2 Large releases:** Confine area to qualified personnel. Shut off release if safe to do so. Dike spill area to prevent runoff into sewers, drains or surface waterways (potential aquatic toxicity). Recover as much of the solution as possible. Treat remaining material as a small release (above).

## Section 7: HANDLING and STORAGE

**7.1 Handling:** Avoid contact with eyes. Use only in a well ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated breathing of vapors. Avoid prolonged or repeated contact with the skin.

**7.2 Storage:** Store in well ventilated areas. Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Store tote and smaller containers out of direct sunlight at moderate temperatures [less than 105°F (41°C)]. (See Section 10.4 for materials of construction)

## Section 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

**8.1 RESPIRATORY PROTECTION:** None generally required. If conditions exist where mist may be generated, a NIOSH/MSHA approved mist respirator should be worn.

**8.2 SKIN PROTECTION:** Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.

**8.3 EYE PROTECTION:** Chemical goggles and a full face shield. DO NOT WEAR CONTACT LENSES.

### 8.4 EXPOSURE GUIDELINES:

	OSHA		ACGIH	
	<u>TWA</u>	<u>STEL</u>	<u>TLV</u>	<u>STEL</u>
None	N/A	NA	NA	NA

**8.5 ENGINEERING CONTROLS:** Use adequate exhaust ventilation to prevent inhalation of product vapors.

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**Section 9: PHYSICAL and CHEMICAL PROPERTIES**

<b>9.1 APPEARANCE:</b>	clear, blue-green liq.
<b>9.2 ODOR:</b>	May have a slight amine odor
<b>9.3 BOILING POINT:</b>	104 °C
<b>9.4 VAPOR PRESSURE:</b>	Not Determined
<b>9.5 VAPOR DENSITY:</b>	Not determined
<b>9.6 SOLUBILITY IN WATER:</b>	Complete
<b>9.7 SPECIFIC GRAVITY:</b>	1.29
<b>9.8 MELTING POINT:</b>	Salt out temperature less than -18°C
<b>9.9 pH:</b>	Typically 9.0 - 10.5
<b>9.10 VOLATILE:</b>	Not applicable

**Section 10: STABILITY and REACTIVITY**

**10.1 STABILITY:** This is a stable material

**10.2 HAZARDOUS POLYMERIZATION:** Will not occur

**10.3 HAZARDOUS DECOMPOSITION PRODUCTS:** Heating this product will evolve ammonia. Heating to dryness will cause the production of ammonia, and oxides of carbon. Ammonia (16-25%) may form flammable mixtures with air.

**10.4 INCOMPATIBILITY:** Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness. Avoid contact with Acids or acid materials. The product is not compatible with copper, zinc or their alloys (i.e. bronze, brass, galvanized metals, etc.). These materials of construction should not be used in piping, handling systems or storage containers for this product. (SEE Section 7.2, Storage)

**Section 11: TOXICOLOGICAL INFORMATION**

**11.1 ORAL:** Oral-Rat LD<sub>50</sub>: > 2,500 mg/Kg

**11.2 DERMAL:** TOTAL N 36 is not a skin sensitizer in guinea pigs by closed patch technique

**11.3 INHALATION:** Data not available

**11.4 CHRONIC/CARCINOGENICITY:** No evidence available

**11.5 TERATOLOGY:** Data not available

**11.6 REPRODUCTION:** Data not available

**11.7 MUTAGENICITY:** Total N 36 is not mutagenic in an Ames Assay using Salmonella typhimurium.

# MATERIAL SAFETY DATA SHEET

**Section 12: ECOLOGICAL INFORMATION**

No data available.

**Section 13: DISPOSAL CONSIDERATIONS**

Total N 36 is not considered hazardous waste. **Containers should be emptied as completely as practical before disposal. If possible, recycle containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site. This product should be suitable for landfill. However, check with local Waste Disposal Authority before sending there. Note that product properties may have been changed in use, significantly altering it's suitability for landfill. Please do NOT dispose into sewers or waterways**

**Section 14: TRANSPORT INFORMATION**

- 14.1 DOT Shipping Name:** urea, triazone fertilizer solution (not regulated by DOT)
- 14.2 DOT Hazard Class:** NA
- 14.3 UN/NA Number:** NA
- 14.4 Packing Group:** NA
- 14.5 DOT Placard:** NA
- 14.6 DOT Label(s):** NA
- 14.7 IMO Shipping Name:** urea, triazone solution (non-hazardous under IMO regulations)
- 14.8 IATA Shipping Name:** Urea Triazone solution (non-hazardous under IATA regulations)
- 14.9 RQ (Reportable Quantity):** NA
- 14.10 RR STCC Number:** 28-713-13

**Section 15: REGULATORY INFORMATION**

**15.1 OSHA:** This product is listed as a hazardous material under criteria of the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200.

- 15.2 SARA TITLE III:**
- |    |  |     |
|----|--|-----|
| a. | <b>EHS (Extremely Hazardous Substance) List:</b>     | No  |
| b. | <b>Section 311/312, (Tier I,II) Categories:</b>      |     |
|    | Immediate (acute)                                    | Yes |
|    | Fire   | No  |
|    | Sudden release                                       | No  |
|    | Reactivity   | No  |
|    | Delayed (chronic)                                    | No  |
| c. | <b>Section 313 (Toxic Release Reporting-Form R):</b> | No  |

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Concentration</u>
NA		

**MATERIAL SAFETY DATA SHEET****Section 15: REGULATORY INFORMATION (Cont.)**

d. TPQ (Threshold Planning Quantity):	No
<b>15.3 CERCLA/SUPERFUND:</b> RQ (Reportable Quantity)	No
<b>15.4 TSCA</b> (Toxic Substance Control Act) Inventory List:	Yes
<b>15.5 RCRA</b> (Resource Conservation and Recovery Act) Status:	NA
<b>15.6 WHMIS</b> (Canada) Hazard Classification:	NA
<b>15.7 DOT</b> Hazardous Material: (See Section 14)	No
<b>15.8 CAA</b> Hazardous Air Pollutant (HAP)	No

**Section 16: OTHER INFORMATION**

This MSDS contains only safety-related information. For other data see product literature.

Please read all labels carefully before using product.

**24 hour National Poisons Information Centre: 13 1126 (from anywhere in Australia)**

**Acronyms:**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>CAS Number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Number</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>SWA</b>	Safe Work Australia, formerly SWA and SWA
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>R-Phrase</b>	Risk Phrase
<b>SUSDP</b>	Standard for the Uniform Scheduling of Drugs & Poisons
<b>UN Number</b>	United Nations Number

**REVISIONS:**

This MSDS is prepared by Growth Agriculture in accord with the SWA document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [SWA:2001(2003)].

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