

# MATERIAL SAFETY DATA SHEET

Product Name: Tramos AeroTech 2000  
Product Code:

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Tramos AeroTech 2000  
Manufacturer: Tramos International N.V.  
Boomsestwg 26  
2630 Aartselaar  
Belgium  
Distributor: Bergdahl Associates, Inc.  
2990 Sutro St.  
Reno, Nevada 89512  
U.S.A.  
(775) 323-7542

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS#	Exposure Guidelines (OSHA/ACGIH)
Sodium Gluconate	527-07-1	None
Sodium Metasilicate	6834-92-0	None
Tensidene	68439-45-2	None
Water	7732-18-5	None

## 3. HAZARDS IDENTIFICATION

### Emergency Overview:

Avoid contact with eyes, skin and clothing. Do not taste or swallow. Wash thoroughly after handling.

Physical Form: Liquid  
Appearance: Clear  
Odor: Characteristic

NFPA Hazard Class: Health: 0 (Least)  
Flammability: 0 (Least)  
Reactivity: 0 (Least)

### Potential Health Effects:

**Eye:** Contact may cause mild eye irritation including stinging, watering and redness.

**Skin:** Contact may cause mild skin irritation including redness and burning sensation. No harmful effects from skin absorption have been reported.

**Inhalation:** No information available. Studies by other exposure routes suggest a low degree of toxicity by inhalation.

**Ingestion:** Low to moderate degree of toxicity by ingestion.

**Signs and Symptoms:** Effects of overexposure may include vomiting and irritation of the nose, throat and digestive tract.

**Cancer:** No data available.

**Target Organs:** Inadequate data available for this material.

**Developmental:** Inadequate data available for this material.

**Pre-Existing Medical Conditions:** None known.

#### 4. FIRST AID MEASURES

**Eye:** If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

**Skin:** Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops and persists, seek medical attention.

**Inhalation:** If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**Ingestion:** If swallowed, seek emergency medical attention. If victim is drowsy or unconscious and vomiting, place on the left side with the head down and do not give anything by mouth. If victim is conscious and alert and ingestion occurred within the last hour, vomiting should be induced for ingestions of large amounts (more than 5 ounces in an adult) preferably under direction from a physician or poison center. If possible, do not leave victim unattended and observe closely for adequacy of breathing.

#### 5. FIRE FIGHTING MEASURES

**Flammable Properties:** Flash Point: None  
 OSHA Flammability Class: Not regulated  
 LEL/UEL: None  
 Autoignition Temperature: None

**Unusual Fire & Explosion Hazards:** Closed containers exposed to extreme heat can

rupture due to pressure buildup.

**Extinguishing Media:** Use extinguishing agent suitable for type of surrounding fire.

**Protection of Fire Fighters:** Emergency responders in the danger area should wear bunker gear and self-contained breathing apparatus for fires beyond the incipient stage (29CFR 1910.156). In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate danger area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from danger area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk.

## 6. ACCIDENTAL RELEASE MEASURES

Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate danger area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8). Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material. Notify appropriate federal, state and local agencies. Immediate cleanup of any spill is recommended.

## 7. HANDLING AND STORAGE

**Handling:** Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 8). Wash thoroughly after handling. Use good personal hygiene practices.

**Storage:** Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** If current ventilation practices are not adequate to minimize exposure, additional ventilation or exhaust systems may be required.

### Personal Protective Equipment (PPE):

**Respiratory:** Respiratory protection is not usually required.

**Skin:** The use of gloves impermeable to the specific material handled is advised to prevent skin contact and possible irritation.

**Eye/Face:** Use approved eye protection to safeguard against potential eye contact, irritation or injury. Depending on conditions of use, a face shield may be necessary.

**General hygiene Considerations:** A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Note: Values are determined at 20°C (68°F)

Flash Point: None

Flammable / Explosive Limits (%): None

Autoignition Temperature: None

Appearance: Clear liquid

Odor: Characteristic

pH: 11.44

Vapor Pressure: Water

Vapor Density (air=1): No data

Boiling Point: None

Freezing / Melting Point: No data

Solubility in Water: 100%

Volume Weight: 1020 – 1040 kg/m<sup>3</sup>

Percent Volatile: No data

Evaporation Rate (nBuAc=1): No data

Volatile Organic Compound (VOC): 0.4 g/l

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable under normal conditions of storage and handling.

**Conditions to Avoid:** None known.

**Incompatible Materials:** None known.

**Hazardous Decomposition Products:** None known.

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity:** Oral (rat) LD<sub>50</sub> >2000 mg/kg

Dermal (rat) LD<sub>50</sub> >2000 mg/kg

**Chronic Toxicity:** No chronic toxicity has been identified.

## 12. ECOLOGICAL INFORMATION

**Aquatic Toxicity:** Non-ionic: EC50 (48 h) Daphnia Magna: 1-10 mg/l  
LC50 (96 h) Rainbow Trout: 1-10 mg/l

Anionic: EC50 (48 h) Daphnia Magna: 38 mg/l  
LC50 (96 h) Rainbow Trout: >100 mg/l

This material meets the Royal Degree dated 10/25/88 and the EC directives 73/404/EC, 73/405/EC, 82/242/EC, 82/242/EC, 86/243/EC, 86/94/EC concerning the biological degradability of surface-active substances.

## 13. DISPOSAL CONSIDERATIONS

This material, if discarded as produced, is not a RCRA "listed" or "characteristic" hazardous waste. Use resulting in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

## 14. TRANSPORT INFORMATION

DOT Proper Shipping Name / Technical Name: None  
Hazard Class or Division: Not regulated  
ID#: None  
Packing Group: Not regulated

## 15. REGULATORY INFORMATION

**Toxic Substances Control Act (TSCA):** All ingredients of this material are on the TSCA Inventory list.

**EPA (CERCLA) Reportable Quantity:** None

**SARA Title III Section 302 – Extremely Hazardous Substances:** None

**SARA 311/312 Hazard Categories:**

**Fire:** No

**Pressure Generating:** No

**Reactivity:** No

**Immediate (acute) Health Hazard:** No

**Delayed (chronic) Health Hazard:** No

**SARA 313 (40CFR 372) Reporting:** None known

**California Proposition 65 Reporting:** None known

This material has not been identified as a carcinogen by NTP, IARC or OSHA.

## 16. ADDITIONAL INFORMATION

Tramos AeroTech 2000 conforms with the following specifications:

ARP 1755B "Effect of Cleaning Agents on Aircraft Engine Materials"

ASTM F 519-97 Type 1A "Mechanical Hydrogen Embrittlement Evaluation"

ASTM F 945-98 (on AMS 4911 alloy) "Stress Corrosion of Titanium Alloys"

Issue Date: 02/13/2007

Previous Issue Date: 07/26/04

Product Code:

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