

# MATERIAL SAFETY DATA SHEET

PRODUCT NAME Brakleen (Aerosol) #05089, 05089T	#MSDSO 5089
MANUFACTURED BY: CRC Industries, Inc.	Phone (215) 674-4300
885 LOUIS DRIVE, WARMINSTER, PA. 18974	

1. INGREDIENTS	CAS #	ACGIH TLV	OSHA PEL	Other Limits	%
* 1,1,1 Trichloroethane	71-55-6	350	350		91.0
1,3 Dioxolane	646-06-0	NA	NA		3.0
* 2-Butanol	78-92-2	100	100		2.0
Carbon Dioxide	124-38-9	5000	10000		4.0
* These chemicals are listed in the Toxic Chemical List found in Section B13 of the Emergency Planning and Community-Right-To-Know Act (SARA Title III) and are subject to release inventory reporting under that act.					

2. PHYSICAL DATA (does not include carbon dioxide propellant)		
Specific Gravity-- 1.293 (70°F)	Vapor Pressure 100 mm @ 20°C	% Volatile 100%
Boiling Point 164°F	Evaporation Rate Rapid	
Freezing Point N/A	Vapor Density 4.55 (air = 1)	
Appearance and Odor Colorless liquid - irritating odor at high concentrations		
Solubility Slight solubility in water - good solvent for many organic materials		

3. FIRE AND EXPLOSION DATA		
Flashpoint None	Method TCC, COC, TOC	Flammable Limits
Extinguishing Media Water, fog	LEL 6	UEL 16.7
Unusual Hazards Aerosol cans may explode if their temperature exceeds 130° F		

4. REACTIVITY AND STABILITY
Stability Good - avoid exposures to open flames, arcs, and high temperatures.
Hazardous decomposition products Thermal - Hydrogen chloride, chlorine and some phosgene
Materials to avoid Avoid storage in aluminum containers or contact with aluminum and/or zinc powder.

5. PROTECTION INFORMATION	
Ventilation Maintain vapor concentration below TLV - Use mechanical means if necessary.	
Respiratory Above TLV use self contained breathing apparatus (air mask or vapor mask).	
Gloves solvent resistant	Eye & Face safety glasses
Other Protective Equipment Not normally required for aerosol product usage.	

**6. HEALTH HAZARD DATA**

Primary Routes of Entry Inhalation and skin contact

Signs and Symptoms of Exposure

1. Acute Overexposure Inhalation - headaches, dizziness, anesthesia, unconsciousness.  
Eyes - causes pain and some irritation. Skin - irritation on  
repeated exposures.

2. Chronic Overexposure Repeated overexposures may cause liver and kidney effects.

Medical Conditions Generally Aggravated by Exposure High levels (8000 ppm +) of vapor may cause  
cardiac arrhythmias

Chemical Listed as Carcinogen or Potential Carcinogen	National Toxicology Program	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	IARC Monographs	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	OSHA	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Emergency and First Aid Procedures (If symptoms persist, call a physician)

- 1. Inhalation Remove to fresh air, apply artificial respiration if necessary.
- 2. Eyes Flush for 15 minutes with large amounts of water.
- 3. Skin Remove contaminated clothing, wash exposed area with soap and water.
- 4. Ingestion DO NOT induce vomiting - call physician

**7. SPILL OR LEAK PROCEDURES**

Precautions to be taken in Handling and Storage Store in a cool, dry place.

Steps to be taken in case Materials is released or spilled Usually not a problem with aerosols. Area should be ventilated and  
absorbent used to pick up excess material.

Waste Disposal Discarded full cans or partially filled cans are considered Hazardous  
Waste - Dispose of in conformance with Local, State and Federal regulation

**8. SPECIAL PRECAUTIONS AND USE DIRECTIONS**

Avoid skin contact or breathing of vapors. Since vapors are heavier than air,  
aerosols should not be used in confined areas or low spots without adequate  
ventilation. If vapors are suspected in a low area, do not enter unless special  
breathing apparatus is used and an observer is present for assistance.

Keep aerosols away from heat.

PREPARED BY: Allen B. Reed

ORIGINAL DATE OR DATE OF REVISION 3-90