



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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MSDS No. TT 80
Effective Date May 21, 1999

SECTION V HEALTH HAZARD DATA

TT 80

Threshold Limited Value

None established by (ACGIH 1992-93). TLV as Aluminum metal: 10 mg/m³; as pyro products and welding fumes; 5 mg/m³.

Effects of Overexposure

INHALATION AS DUST: Will cause respiratory irritation and lung injury. **EYES:** Particles of this material in the eye may cause injury to cornea. Exercise appropriate procedures to minimize potential hazards. **SKIN:** May cause irritation.

Emergency and First Aid Procedures

INHALATION AS DUST: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention. **SKIN:** Flush with water, then wash with mild soap and water. **INGESTION:** Treat symptomatically and supportively. Get medical attention. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than hips to prevent aspiration.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	Do not expose to excessive temperature, sparks and open flame.
	Stable		

Incompatibility (Materials to Avoid)	May form explosive mixtures in air. When damp may heat spontaneously. Reacts with some acids and caustic solutions to produce hydrogen.
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Hazardous Decomposition Products	Aluminum fume resulting from the intense heat of ignition.
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Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled	Carefully clean up and replace in container or mix with dry sand (1:1 ratio) and dispose.
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Waste Disposal Method	Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Mix with dry sand and dispose of in an approved chemical landfill or contract with a licensed waste disposal service.
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SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	None needed in normal laboratory handling at room temperature.		
Ventilation	Local Exhaust	None needed.	Special No.
	Mechanical (General)	None needed.	Other No.
Protective Gloves	None needed.	Eye Protection	Chemical safety glasses.

Other Protective Equipment	Lab coat, eye wash station, dry silica sand.
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SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	No fire hazard is incurred under normal conditions of handling and storing Thermit welding mixture since an initial temperature of more than 2200°F (1200°C) is needed for ignition. To start the reaction, a special starting Thermit or igniter is required.
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Keep container tightly closed when not in use.

Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals. Store in a cool, dry place away from excessive temperature, sparks and open flame. Keep dry and isolate from acids, caustics and chlorinated hydrocarbons. Store away from combustible materials. Wash thoroughly after handling. Remove and wash contaminated clothing.
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For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 5	Date 5/21/99	Approved Michael Raszeja	Chemical Safety Coordinator MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	Thermit, BLACK
Chemical Synonyms	Thermit Welding Powder
Formula	Fe ₂ O ₃ + Al (Approx. 3:1)
Unit Size	up to 2.5 Kg.
C.A.S. No.	None assigned.

CHEMTREC
800-424-9300
Day 716-226-6177

NFPA HAZARD RATING
LEAST SLIGHT MODERATE HIGH EXTREME
0 1 2 3 4

Health	0
Fire	0
Reactivity	2

HMIS *

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Thermit, Black contains mixture of approximately	100%	None established.
three parts Iron Oxide: (CAS No. 1309-37-1) to one part		
of Aluminum Metal Powder: (CAS No. 7429-90-5).		

WARNING! THERMIT BLACK BECOMES A HAZARD OF FIRE ONLY IF EXPOSED TO TEMPERATURES ABOVE 2500°F (1371°C), BUT NOT TOXIC.

SECTION III PHYSICAL DATA

Melting Point (°F)	Data not listed.	Specific Gravity (H ₂ O = 1)	Greater than 1.
Boiling Point (°F)	Data not listed.	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate ()	N/A
Vapor Density (Air=1)	Data not listed.		
Solubility in Water	Insoluble.		
Appearance & Odor	Mixture of silver and black to brown colored, fine granules; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	N/A	Flammable Limits in Air % by Volume	N/A	Lower	Upper
Extinguisher Media	Dry silica sand.				

SPECIAL FIREFIGHTING PROCEDURES

Cover with dry silica sand. In fire conditions, wear a NIOSH/MSHA approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Thermit black, welding powder, may be ignited by static discharge and burns at extremely high temperature. Dangerous when exposed to heat or flame. Thermit black is very dangerous in that once started it is very difficult to stop, as it supplies its' own oxygen. It may attain a temperature in excess of 2500°F (1371°C).

D.O.T. NON-REGULATED.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20