

Safety Data Sheet (SDS)

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Thermit™

Signal Word
DANGER

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261

Chemtrec Emergency Phone Number: (800) 424-10426

Pictograms

SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Flammable solids (Category 2). Flammable solid (H228). Keep away from heat, sparks, open flames, and hot surfaces. No smoking (P210).



On ignition the reaction produces a temperature of approximately 2200 °C which will soften steel. A typical oxide/metal reaction which provides its own oxygen supply and is very, very, difficult to stop.

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Thermit, Black (a proprietary mixture of iron oxide, aluminum, ferro manganese, and ferro vanadium)	69012-31-3			
Note: Percent composition of each ingredient is protected under confidential business information clause of GHS.				

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell.

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

If on skin: Wash with plenty of water.

If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Flammable solid.

NFPA Code

Dangerous fire risk; once reaction has started, it is very difficult to stop.

H: 1

In case of fire: Use a Class D or dry sand as a fire extinguisher. Avoid water contact, violent reaction with water.

F: 1

R: 0

No Water

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Remove all ignition sources and water. Sweep up, place in sealed bag or container and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #4. Store with hydroxides, oxides, silicates and carbonates. Store in Flinn Saf-Stor™ can inside a dedicated flammables cabinet. Use explosion-proof electrical and ventilating equipment (P241).

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear dark safety glasses when igniting thermit or using thermit ignition sticks. Wash hands thoroughly after handling.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Black powder. Odorless.

Autoignition temperature: greater than 1830 °F/ 999 °C

Melting point: greater than 1220 °F/ 660 °C

Specific gravity: greater than 1 g/mL @ 20 °C

SECTION 10 — STABILITY AND REACTIVITY

Avoid sources of ignition. (i.e. open flame, sparks) and moisture. Shelf life: Good, if stored properly.

Incompatible materials: Reacts with acids and caustic solutions to produce hydrogen.

Hazardous decomposition products: Can produce hydrogen when exposed to caustic solutions or acids.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: N.A.

ORL-RAT LD₅₀: N.A.

Chronic effects: N.A.

IHL-RAT LC₅₀: N.A.

Target organs: N.A.

SKN-RBT LD₅₀: N.A.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.

Flinn Suggested Disposal Method #26a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

SECTION 15 — REGULATORY INFORMATION

RCRA Code D001.

SECTION 16 — OTHER INFORMATION

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N.A. = Not available, not all health aspects of this substance have been fully investigated.

N/A = Not applicable

Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.

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