

Advanced Chemistry & Technology

A·C·TECH®

7341 Anaconda Avenue, Garden Grove, California 92841 714/ 373-2837 Fax 714/ 373-1913

Material Safety Data Sheet

AC-® 010 Accelerator

MSDS No: 20101-04
Effective: 02/13/07
Supercedes: 08/27/04
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1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product ID: AC-010 Accelerator
Generic Description: Manganese metallic oxide compound
Product Use: Accelerator

For information, contact:
Advanced Chemistry & Technology
7341 Anaconda Avenue
Garden Grove, CA 92841-2921
714 - 373 - 2837

HAZARD RATINGS		
	HMIS	NFPA
Health	1*	1
Fire	1	1
Reactivity	0	0
* = Chronic		

ChemTrec Emergency
1 - 800 - 424 - 9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME

Manganese oxide
Terphenyl, hydrogenated
Terphenyl
Non - hazardous and other ingredients below reportable levels

CAS #	Approximate % (w/w)
1313 - 13 - 9	45 - 55
61788 - 32 - 7	35 - 45
26140 - 60 - 3	1 - 5
Proprietary	Balance

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: MAY CAUSE ALLERGIC SKIN REACTION AND SENSITIZATION. INHALATION MAY CAUSE DIZZINESS, HEADACHE AND LOSS OF COORDINATION. MAY CAUSE MODERATE EYE IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION. MAY CAUSE DIGESTIVE TRACT IRRITATION. INGESTION MAY CAUSE NAUSEA, VOMITING, PAIN, UPSET STOMACH, DIARRHEA. MAY CAUSE SKIN IRRITATION. See sections 3, 5, & 6.

PRIMARY ROUTES OF EXPOSURE: Eye. Skin. Inhalation, (Breathing).

EYE CONTACT: May cause moderate irritation.

SKIN CONTACT: May cause slight to mild irritation. May cause allergic skin reactions and sensitization.

INHALATION (Breathing): Irritating to the eyes, nose, and respiratory tract. Can cause dizziness, headaches, and loss of coordination.

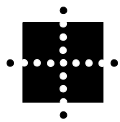
INGESTION (Swallowing): Irritating to the mouth, throat, and stomach. May cause nausea, vomiting, pain, and stomach upset (e.g., diarrhea).

TARGET ORGANS/CHRONIC EFFECTS: Liver. Kidneys. Nervous system. Blood and/or blood - forming organs. Lungs and respiratory system. Reproductive system (and reproductive effects). Eyes. Skin. Immune system, (e.g., allergic reactions).

CONDITIONS AGGRAVATED BY EXPOSURE: Liver. Kidneys. Lungs and respiratory system. Skin. Immune systems and/or specific chemical allergies.

CARCINOGENICITY:

	ACGIH	IARC	NTP	OSHA
Manganese oxide	No	No	No	No
Terphenyl, hydrogenated	No	No	No	No
Terphenyl	No	No	No	No



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4. FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

SKIN CONTACT: Immediately flush with water. Remove contaminated clothing and shoes. Get medical attention if irritation persists. Professionally wash clothing and shoes before re - use.

INHALATION (Breathing): Remove to fresh air. If symptoms develop, seek immediate medical attention. If not breathing, give artificial respiration.

INGESTION (Swallowing): Seek medical attention. Immediately induce vomiting, as directed by medical personnel. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIANS: Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

5. FIRE FIGHTING METHODS

Flash Point.....:	> 200F 93.3C	Method.....:	Setaflash Closed Cup
Explosive Lmts.....:	LEL (%) Not Applicable UEL (%) Not Applicable		
Autoignition.....:	Not Applicable		

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Smoke, soot, and toxic/irritating fumes (i.e., carbon dioxide, carbon monoxide, etc.). Oxides of nitrogen. Metallic oxides.

FIRE AND EXPLOSION HAZARDS: During a fire, irritating and highly toxic gases may be generated during combustion or decomposition.

EXTINGUISHING MEDIA: SMALL FIRES: Dry chemical, carbon dioxide, halon, water spray, or foam. LARGE FIRES: Water spray, fog, or alcohol foam.

FIRE FIGHTING PROCEDURES/EQUIPMENT: Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH - approved positive pressure self - contained breathing apparatus (SCBA) and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

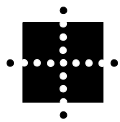
EVACUATION: Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Eliminate all sources of ignition.

CONTAINMENT: Safely stop discharge. Contain material, as necessary, with a dike or barrier. Stop material from contaminating soil, or from entering sewers or bodies of water.

CLEAN - UP/PERSONAL PROTECTION EQUIPMENT: Appropriate safety measures and protective equipment should be used. Use supplied air respirator or self - contained breathing apparatus in enclosed spaces or if airborne exposure limits can be exceeded. See Section 8.

COLLECTION AND DISPOSAL: Stop discharge, if safe to do so. Use proper protective equipment. Cover spills with absorbent clay or sawdust and place in closed chemical waste containers. Dispose of according to applicable local, state and federal regulations.

REPORTING: Spills of this material in excess of a component's RQ must be reported to the National Response Center (1 - 800 - 424 - 8802) and to the appropriate state and local emergency response organizations.



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7. HANDLING AND STORAGE

Storage Temperature < 100°F 37.8C

STORAGE CONDITIONS: Store in cool, dry, well ventilated area away from heat, ignition sources, and direct sunlight. Keep containers tightly closed.

TRANSFER: No special precautions are needed. Follow good manufacturing and handling practices.

PERSONAL HYGIENE: Wash thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities. Wash contaminated goggles face-shield, and gloves. Professionally launder contaminated clothing before re - use.

EMPTY CONTAINER PRECAUTIONS: **Attention!** This container can be hazardous when empty. Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container without professional cleaning for food, clothing, or products for human or animal consumption or where skin contact can occur.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:

ACGIH - TLV

Manganese oxide Dusts and compounds, as Mn	5	mg/M ³
Manganese oxide Fume	1	mg/M ³
Terphenyl, hydrogenated	0.5	ppm - Ceiling
Terphenyl	0.53	ppm - Ceiling

OSHA - PEL

Manganese oxide Fume	1	mg/M ³
Terphenyl, hydrogenated	0.5	ppm
Terphenyl	0.5	ppm - Ceiling

ENGINEERING CONTROLS/VENTILATION: Local exhaust ventilation is recommended when vapors, mists, or dusts can be released in excess of established airborne exposure limits (TLVs or PELs).

EYE PROTECTION: Wear chemical splash goggles. An eye wash facility should be readily available.

SKIN PROTECTION: Wear protective clothing and appropriate impervious gloves. Because a variety of protective gloves exist, consult glove manufacturer to determine the proper type for a specific operation.

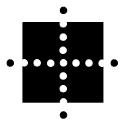
RESPIRATORY PROTECTION: Avoid breathing vapor and/or mists. Wear NIOSH/MSHA - approved equipment. Determine the appropriate type by consulting the respirator manufacturer. High airborne concentrations may necessitate the use of self - contained breathing apparatus (SCBA) or a supplied air respirator. Respiratory protection programs must be in compliance with 29 CFR 1910.134.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance.....:	Black	Odor.....:	Distinct
Physical State.....:	Paste	Solubility.....:	Insoluble
pH.....:	Not Applicable	Vapor Pressure....:	0.1 mm Hg
Vapor Density.....:	> 1	Evaporation Rt.....:	< 1 (Butyl acetate)
VOC Material.....:	0 g/L 0 lbs./gal	Specific Gravity>..:	1.65
%Non - Vol (w/w):.	100		

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY



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CHEMICAL STABILITY: Stable under normal conditions of use.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: High temperatures.

INCOMPATIBILITY WITH OTHER MATERIALS: Oxidizers. Acids.

11. TOXICITY INFORMATION

COMPONENTS:

Manganese oxide:

Eye, skin, and respiratory tract irritant. Can cause liver and kidney injury.

Terphenyl, hydrogenated:

Oral LD50	Rat	17,500	mg/kg
	Mouse	12,500	mg/kg
Dermal LD50	Rabbit	> 2,000	mg/kg

Terphenyl

Oral LD50	Rat	13,200	mg/kg
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12. ECOLOGICAL INFORMATION

No ecological data on the product itself is available.

The product must not be allowed to run into drains or waterways.

Ecotoxicity:

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose in accordance with all local, state, and federal regulations.

GENERAL STATEMENTS: Federal regulations may apply to empty container. State and/or local regulations may be different.

GENERAL RECOMMENDATIONS: Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability: (1) recycle or rework, if feasible; (2) incinerate at an authorized facility; or (3) treat at an acceptable waste treatment facility.

SPECIAL INSTRUCTIONS: Be sure to contact the appropriate government environmental agencies if further guidance is required.

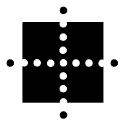
14. TRANSPORT INFORMATION

Weight (lb.)	Shipping Name	49 CFR	IATA	IMO
	Non - regulated	Y	Y	Y

DOT Label.....: Not applicable

UN/NA Id Num...: Not Applicable

15. REGULATORY INFORMATION



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FEDERAL:

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SARA Title III - Section 311/312 - Hazard Categories:

- N - Fire Hazard
- N - Sudden Release of Pressure Hazard
- N - Reactivity Hazard
- Y - Immediate (acute) Health Hazard
- Y - Delayed (chronic) Health Hazard

Ozone - Depleting Chemicals - No regulated ingredients.

SARA Section 302 Extremely Hazardous Mat - No regulated ingredients.

SARA Section 313 Toxic Chemicals
Manganese oxide

CHEMICAL LISTING - Listed on the following Country's Chemical Inventories:

United States Toxic Substance Control Act
Chemical component(s) in this product are on the section 8(b) Chemical Substance Inventory List (40 CFR 710).

STATE RIGHT - TO - KNOW:

Pennsylvania - New Jersey R - T - K

Manganese oxide	1313 - 13 - 9	45 - 55
Terphenyl, hydrogenated	61788 - 32 - 7	35 - 45
Terphenyl	26140 - 60 - 3	1 - 5
Environmental Hazard.		
Non - hazardous trade secret ingredient(s)	Proprietary	Balance

California - California Proposition 65 - No regulated ingredients.

CONEG - No data available.

CANADA:

This is a "controlled product" under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Class D Division 2 Sub - division A

Class D Division 2 Sub - division B

CEPA - NPRI

Manganese oxide

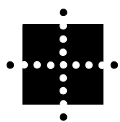
EC:

Particular hazards associated with the preparation and safety recommendations:

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R20/22 Harmful by inhalation and if swallowed.

S36/37 Wear suitable protective clothing and gloves.



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Preparation classification:



Harmful

Contains:

25-01-00-3 Manganese dioxide

16. OTHER INFORMATION

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R20/22 Harmful by inhalation and if swallowed.

S36/37 Wear suitable protective clothing and gloves.

USER RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

DISCLAIMER OF LIABILITY: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations. End of Material Safety Data Sheet

End of Material Safety Data Sheet