

Material Safety Data Sheet

Cerium, mixed metal

ACC# 09835

Section 1 - Chemical Product and Company Identification

MSDS Name: Cerium, mixed metal

Catalog Numbers: AC376560000, AC376560300, AC376563000

Synonyms: Misch metal cerium

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7440-45-1	Cerium	47-60%	231-154-9
7439-91-0	Lanthanum	20-38%	231-099-0
7440-10-0	Praseodymium	5-10%	231-120-3
7440-00-8	Neodymium	1-20%	231-109-3
62379-61-7	Cerium, mixed metal		unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: grey metal lumps.

Danger! Flammable solid. Water-reactive. Contact with water liberates toxic gas. May cause eye, skin, and respiratory tract irritation. May cause central nervous system effects.

Target Organs: Central nervous system, respiratory system, eyes, skin.

Potential Health Effects

Eye: May cause eye irritation. May cause chemical conjunctivitis and corneal damage.

Skin: May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation: May cause respiratory tract irritation. May be harmful if inhaled. Can produce delayed pulmonary edema.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If water-reactive products are embedded in the skin, no water should be applied. The embedded products should be covered with a light oil.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: Remove from exposure and move to fresh air immediately.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Water Reactive. Material will react with water and may release a flammable and/or toxic gas. Dust can be an explosion hazard when exposed to heat or flame. Flammable solid. May react with acids or moisture to form explosive hydrogen gas. May ignite or explode on contact with steam or moist air.

Extinguishing Media: Use approved class D extinguishing agents or smother with dry sand, clay, or sodium bicarbonate. Contact professional fire-fighters immediately. Do NOT use water, CO₂, or halogenated extinguishers. Use dry chemical extinguishing agents, dry sand or dry ground dolomite.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 3; Instability: 2; Special Hazard: -W-

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Do not expose spill to water.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not allow contact with water. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Keep away from water. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Cerium	none listed	none listed	none listed
Lanthanum	none listed	none listed	none listed
Praseodymium	none listed	none listed	none listed
Neodymium	none listed	none listed	none listed
Cerium, mixed metal	none listed	none listed	none listed

OSHA Vacated PELs: Cerium: No OSHA Vacated PELs are listed for this chemical. Lanthanum: No OSHA Vacated PELs are listed for this chemical. Praseodymium: No OSHA Vacated PELs are listed for this chemical. Neodymium: No OSHA Vacated PELs are listed for this chemical. Cerium, mixed metal: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Lumps

Appearance: grey metal

Odor: odorless

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 3500 deg C

Freezing/Melting Point: 800 deg C

Decomposition Temperature: Not available.

Solubility: Reacts.

Specific Gravity/Density: Not available.

Molecular Formula: Ce

Molecular Weight: Not available.

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, dust generation, excess heat, exposure to moist air or water.

Incompatibilities with Other Materials: Strong oxidizing agents, water.

Hazardous Decomposition Products: Hydrogen gas, silicon dioxide, oxides of iron, lanthanum vapors, metallic oxides, lanthanum hydroxide, Oxides of Neodymium.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 7440-45-1 unlisted.

CAS# 7439-91-0 unlisted.

CAS# 7440-10-0 unlisted.

CAS# 7440-00-8: Q08575000

CAS# 62379-61-7 unlisted.

LD50/LC50:

Not available.

Not available.

Not available.

Not available.

Not available.

Carcinogenicity:

CAS# 7440-45-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7439-91-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7440-10-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7440-00-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 62379-61-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	FERROCERIUM Cerium	No information available.
Hazard Class:	4.1	
UN Number:	UN1323	
Packing Group:	II	

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 7440-45-1 is listed on the TSCA inventory.

CAS# 7439-91-0 is listed on the TSCA inventory.

CAS# 7440-10-0 is listed on the TSCA inventory.

CAS# 7440-00-8 is listed on the TSCA inventory.

CAS# 62379-61-7 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPO.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 7440-45-1 can be found on the following state right to know lists: New Jersey.

CAS# 7439-91-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
CAS# 7440-10-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
CAS# 7440-00-8 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
CAS# 62379-61-7 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

F

Risk Phrases:

R 11 Highly flammable.
R 15 Contact with water liberates extremely flammable gases.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

WGK (Water Danger/Protection)

CAS# 7440-45-1: No information available.
CAS# 7439-91-0: No information available.
CAS# 7440-10-0: No information available.
CAS# 7440-00-8: No information available.
CAS# 62379-61-7: No information available.

Canada - DSL/NDSL

CAS# 7440-45-1 is listed on Canada's DSL List.
CAS# 7439-91-0 is listed on Canada's DSL List.
CAS# 7440-10-0 is listed on Canada's DSL List.
CAS# 7440-00-8 is listed on Canada's DSL List.
CAS# 62379-61-7 is listed on Canada's NDSL List.

Canada - WHMIS

This product has a WHMIS classification of B4, B6.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 10/08/2004

Revision #3 Date: 7/22/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.