Safety Data Sheet

Safety Data Sheet

SDS Name: Lighter Flints, FL34, FL34D, FL3437TC, FL35, FL36, FL37

1. Identification

Product Name: Lighter Flints

Relevant identified uses of the substance or mixture and uses advised against

Application of the substance / the preparation: Raw material for industrial applications.
Lighter Flints

Details of the supplier of the safety data sheet

Supplier: Uniweld Products, Inc.,
Address: 2850 Ravenswood Road, Ft. Lauderdale, FL 33312 United States of America

Emergency: For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

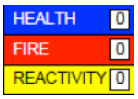
2. Hazard(s) identification

Classification of the substance or mixture The product is not classified according to the Globally Harmonized System (GHS).

Label elements
· **GHS label elements** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**

Health = 0
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 0
Fire = 0
Reactivity = 0

Other hazards Lighter flints in the delivered form (cylindrical pieces) have no special risk.
Moderate risk of explosions of fine material.
Dust can have irritant effects to eyes and respiratory organs.
Inappropriate use of lighter flints (e.g. use for sparking effects) can lead to fire and burn injuries.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3. Composition/information on ingredients

Chemical characterization: Substances

Ferro Cerium
Lighter Flints

Product name: Ferro Cerium

Lighter Flints Chemical characterization: Mixtures

Components:

	Mischmetal (Rare Earth Metals)	> 76%
CAS: 7439-89-6 EINECS: 231-096-4 Reg.nr.: 01-2119462838-24-0360	Iron	~20%
CAS: 7439-95-4 EINECS: 231-104-6 Index number: 012-001-00-3	Magnesium -Pyr. Sol. 1, H250; Water-react. 1, H260	~2%

Additional information: Rare Earth Mischmetal contains:
Cerium (EINECS: 231-154-9; CAS: 7440-45-1)
Lanthanum (EINECS: 231-099-0; CAS: 7439-91-0)

4. First-Aid Measures

Description of first aid measures

After inhalation: Supply fresh air.
Seek medical treatment in case of complaints.

After skin contact: Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Most important symptoms and effects, both acute and delayed No further relevant information available.

Information for doctor: Treat symptomatically.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing agents: Dry sand
Fire-extinguishing powder
Special powder for metal fires. Do not use water.

For safety reasons unsuitable extinguishing agents: Water
Carbon dioxide
Halogen extinguisher

Special hazards arising from the substance or mixture In case of fire, the following can be released:
Toxic metal oxide smoke

Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device.
Wear fully protective suit.

Additional information: Cover all exposed surfaces with sand, salt or metal-extinguisher powder.
Material should not be mixed until the material has been allowed to cool down.
Dispose of fire debris and contaminated firefighting water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Avoid formation of dust.
Keep away from ignition sources

Environmental precautions:
No special measures required.

Methods and material for containment and cleaning up:
Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
Use non-sparking tools, because the rubbing of the product with metallic objects may cause a formation of sparks.

Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. Handling and Storage

Precautions for safe handling
Prevent formation of dust.
When working with powdered material it is recommended to use a dry inert gas atmosphere and a local explosion proof exhaust system.

Information about protection against explosions and fires:
Keep ignition sources away - Do not smoke.
Keep away from oxidizing agents.
Finely distributed particles may be flammable or explosive.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:
Keep receptacle tightly sealed.
Store in dry conditions.

·Information about storage in one common storage facility:
Store away from flammable substances.
Do not store together with acids.
Store away from oxidizing agents.
Store away from water.

Further information about storage conditions:
Protect from contamination.
Never store lighter flints uncontrolled.

Specific end use(s)
No further relevant information available.

8. Exposure Controls/Personal Protection

Additional information about design of technical systems: Ensure good ventilation/exhaustion at the workplace.

Control parameters
Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNELs

7440-45-1 Cerium		
Oral	DNEL system. Effects	3.04 mg/kg bw/day (Human (consumer))
Dermal	DNEL system. Effects	3.04 mg/kg bw/day (Human (consumer))
		5.07 mg/kg bw/day (Human (worker))
Inhalative	DNEL system. effects	6 mg/m^3 (Human (consumer))
		10 mg/m^3 (Human (worker))
7439-91-0 Lanthanum		
Oral	Oral Acute syst. Effects	(General Population) No hazard identified
	LT syst. Effects	(General Population) No hazard identified
Dermal	Acute local effects	(General Population) No hazard identified
		(Human (worker) No hazard identified
	Acute syst. Effects	(General Population) No hazard identified
	LT local effects	(General Population) No hazard identified
	LT syst. effects	(General Population) No hazard identified
		(Human (worker) No hazard identified
Inhalative	Acute local effects	(General Population) No hazard identified
	Acute syst. Effects	(General Population) No hazard identified
	DNEL acute effects	(Human (worker) No hazard identified
	DNEL local effects	(Human (worker) No hazard identified
	LT local effects	(General Population) No hazard identified
	LT syst. Effects	(General Population) No hazard identified
		(Human (worker) No hazard identified
Irritation of eyes	Local effects	(General Population) No hazard identified
		(Human (worker) No hazard identified

PNECs

7440-45-1 Cerium	
PNEC STP	60.9 mg/l (Microorganisms (activated sludge)) (OECD 209 (Activated Sludge, Resp. Inhibition Test)) Test material: Dicerium tricarbonate Grutzner I (2006)
PNEC freshwater	0.6 mg/l (Freshwater organisms) Extrapolation method: assessment factor
PNEC marine	60.9 µg/l (Marine organisms) Extrapolation method: assessment factor
7439-91-0 Lanthanum	
PNEC	No hazard identified

Additional information:	The lists that were valid during the creation were used as basis.
Exposure controls **Personal protective equipment:**	
General protective and hygienic measures:	Do not eat, drink, smoke or sniff while working. Wash hands before breaks and at the end of work.
Breathing equipment:	Not necessary if room is well-ventilated.
Protection of hands:	Protective gloves
Material of gloves	Wear gloves for the protection against mechanical hazards according to EN 388.
Penetration time of glove material	The exact break through time has to be found out by the manufacturer of The protective gloves and has to be observed.
Eye protection:	Safety glasses
Body protection:	Protective work clothing

9. Physical and Chemical Properties

Information on basic physical and chemical properties
General Information

Appearance:	
Form:	Solid, Lumpy
Color:	Grey -Different according to coloring
Odor:	Odorless
Odor threshold:	Not applicable
pH-value:	Not applicable
Melting point/Melting range:	ca. 700 °C (ca. 1292 °F)
Boiling point/Boiling range:	ca. 1100 °C (ca. 2012 °F)
Flash point:	Not applicable
Flammability (solid, gaseous):	Flammable.
Ignition temperature:	Solid material (flints): 400 °C (752°F) Powder: 195 - 280 °C (338°F – 536°F)
Auto igniting:	Product is not self-igniting.
Danger of explosion:	Lighter flints: not applicable. Powder: not determined.
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Oxidizing properties Lumpy:	none In form of powder: yes.
Density:	6.5 g/cm^3 (54.243 lbs/gal)
Solubility in / Miscibility with Water:	Insoluble.
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	Not determined
Kinematic:	Not determined
Other information	No further relevant information available.

10. Stability and Reactivity

Reactivity
Chemical stability
Thermal decomposition / conditions to be avoided: Lumpy material is stable against corrosion.

Possibility of hazardous reactions Reacts with strong oxidizing agents.
Reacts with water and acids.

Conditions to avoid No further relevant information available.

Incompatible materials: Keep away from water.
Keep away from oxidising agents and acidic substances.

Hazardous decomposition products: No dangerous decomposition products known

Additional information: If ferro mischmetal gets inadvertently wet, put it on an absorptive material and dry it with warm air (not to hot).

11. Toxicological Information

Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification:

7440-45-1 Cerium		
Oral	LD50	> 5000 mg/kg (rat (Sprague-Dawley) (EPA OPPTS 870.1100 (Acute Oral Toxicity)) Test material: Dicerium tricarbonate Lambert CE, Barnum EC, Shapiro R (1993)
	NOAEL	150 mg/kg bw/day (rat (Sprague-Dawley)) (OECD Guideline 422) Repeated dose toxicity oral Test material: Dicerium tricarbonate Target organs: digestive: stomach
Inhalative	LC50/4 h	5.05 mg/l (rat (wistar)) (OECD Guideline 403 (Acute Inhalation Toxicity)) Test material: Dicerium tricarbonate F. Duchosal (1993)
7439-91-0 Lanthanum		
Oral	LD50	- mg/kg (-) Study technically not feasible
	NOAEL	10648 ppm (rat (wistar)) (OECD Guideline 408; EU Method B.7) read-across from supporting substance(structural analogue or surrogate) Test material: lanthanum carbonate octahydrate 1126 mg/kg bw/day (rat (wistar - female)) (OECD Guideline 408; E U Method B.7) Read-across von unterstützender Substanz (Strukturanalog oder Ersatz) Testmaterial: Lanthankarbonat oktahydrat 741 mg/kg bw/day (rat (wistar - male)) (OECD Guideline 408; EU Method B.7) read-across from supporting substance (structural analogue or surrogate) Test material: lanthanum carbonate octahydrate
Dermal	LD50	mg/kg (-) Study technically not feasible
Inhalative	LC50	mg/kg (-) Study technically not feasible
Irritation of skin		-(-) Study technically not feasible
Irritation of eyes Study technically not feasible		-(-)
7439-89-6 Iron		
Oral	LD50	20000 mg/kg (Guinea pig) Lit.: Indian Journal of Pharmacy. Vol. 13, Pg. 240, 1951. 30000 mg/kg (Rat) Lit.: Indian Journal of Pharmacy. Vol. 13, Pg. 240, 1951.

on the skin:	No data available.
on the eye:	No data available.
Sensitization:	No sensitizing effects known.
Other information about experimental toxicology):	Warning, substance not yet fully tested
Additional toxicological information:	The product is not subject to classification according to internally approved calculation methods for preparations:
Carcinogenic categories IARC (International Agency for Research on Cancer)	None of the ingredients is listed.
NTP (National Toxicology Program)	None of the ingredients is listed.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)	Not determined

12. Ecological Information

· Toxicity
· Aquatic toxicity:

7440-45-1 Cerium	
EC50/72h	>100 mg/l (Desmodesmus subspicatus) (OECD Guideline 201 (Alga, Growth Inhibition Test)) Test material: Dicerium tricarbonate Bätscher Roger (2007)
LC50/48h	> 100 mg/l (Daphnia magna) (OECD Guideline 202; EU Method C.2) Test material: Dicerium tricarbonate Bätscher R (2007b)
LC50/96h	> 100 mg/l (Oncorhynchus mykiss) (OECD Guideline 203; EU Method C.1) Test material: Dicerium tricarbonate Bätscher R (2007a)

7439-91-0 Lanthanum	
EC50/48h	mg/l (Daphnia) Study technically not feasible
EC50/72h	EC50/72h - mg/l (Ag) Study technically not feasible

Persistence and degradability	Not determined
Bioaccumulative potential	Not determined
Mobility in soil	No further relevant information available.
Additional ecological information: **AOX-indication:**	The product does not contain organically bounded halogens (AOX-free).
General notes:	Generally not hazardous for water
Results of PBT and vPvB assessment **PBT:**	Not applicable.
vPvB:	Not applicable.
Other adverse effects	No further relevant information available

13. Disposal Considerations

Waste treatment methods
Recommendation:

Ferro Mischmetal tends to oxidize if they are stored for a longer time. The formed oxides are mostly available in form of powder. Powder and swarf of Mischmetal have pyrophoric properties and spontaneous ignition is possible. Put small portions of about 100 g in 1 l saltwater (5 - 15 %) in a metallic vessel and place it outside buildings. Wait till the reaction process (Hydrogen development) is finished, which may take a few days. The remaining sludge can be disposed riskless. In case of doubt contact manufacturer or supplier.
Disposal must be made according to official regulations.

Waste disposal key: 51310 (ÖNORM S 2100)

European waste catalogue 06 03 16

Uncleaned packagings:
Recommendation:

Packaging that cannot be cleansed are to be disposed of in the same manner as the product.
Disposal must be made according to official regulations.

14. Transport Information

UN-Number
DOT, ADR, ADN, IMDG, IATA Void

UN proper shipping name
DOT, ADR, ADN, IMDG, IATA Void

Transport hazard class(es)
DOT, ADR, ADN, IMDG, IATA

Class Void

Packing group
DOT, ADR, IMDG, IATA Void

Environmental hazards: Not applicable

Special precautions for user Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information: Not dangerous according to the above specifications.

IATA No dangerous good according to "IATA Dangerous Goods Regulation (DGR) 55th Edition 2014"

UN "Model Regulation": -

15. Regulatory Information

REACH-Registration number:	Cerium: 01-2119480148-35-0000 Lanthanum: 01-2119971281-39-0000 Iron: 01-2119462838-24-0360
Safety, health and environmental regulations/legislation specific for the substance or mixture **Sara** **Section 302** **(extremely hazardous substances):**	None of the ingredients is listed.
Section 313 **(Specific toxic chemical listings):**	None of the ingredients is listed.
TSCA (Toxic Substances Control Act):	All ingredients are listed.
Proposition 65 **Chemicals known to cause cancer:**	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients is listed.
Chemicals known to cause developmental toxicity:	None of the ingredients is listed.
Cancerogenity categories **EPA (Environmental Protection Agency)**	None of the ingredients is listed.
TLV (Threshold Limit Value established by ACGIH)	None of the ingredients is listed.
MAK (German Maximum Workplace Concentration)	None of the ingredients is listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)	None of the ingredients is listed.
OSHA-Ca (Occupational Safety & Health Administration)	None of the ingredients is listed.
Canadian substance listings: **Canadian Domestic Substances List (DSL)**	All ingredients are listed.
Canadian Ingredient Disclosure list (limit 0.1%)	None of the ingredients is listed.
Canadian Ingredient Disclosure list (limit 0.1%)	None of the ingredients is listed.
Philippines Inventory of Chemicals and Chemical Substances	All ingredients are listed.
Chinese Chemical Inventory of Existing Chemical Substances	7440-45-1 Cerium 7439-89-6 Iron 7439-95-4 Magnesium
Australian Inventory of Chemical Substances	All ingredients are listed.

Korean Existing Chemical Inventory	7440-45-1 Cerium KE-05379 7439-91-0 Lanthanum KE-21820 7439-89-6 Iron KE-21059 7439-95-4 Magnesium KE-22673
Standard for the Uniform Scheduling of Drugs and Poisons	7439-91-0 Lanthanum S4
Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.

16. Other Information

Relevant phrases	H250 Catches fire spontaneously if exposed to air. H260 In contact with water releases flammable gases which may ignite spontaneously.
Department issuing SDS:	HSE Department Chemical Management
Date of preparation / last revision	5-May-2015
Abbreviations and acronyms:	RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organization ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent *** Data compared to the previous version altered.**