

Material Safety Data Sheet



1. Identification of the Substance/Preparation and the Company/Undertaking

1.1. Product identifier

Substance or preparation trade name: Lighter Flint

Unique reference numbers(s): 683002, 682003, 681003, 683001, 682001, 681001, 681002

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

1.3. Details of the supplier of the safety data sheet

Company/undertaking name & address: Parweld Ltd, Long Bank, Bewdley, Worcs, UK

ABN: 95 000 029 729

Telephone number: +00 44 1299 266800

Telefax: +00 44 1299 266900

Emergency telephone number: +00 44 1299 266800

1.4. Emergency telephone number

Emergency tel: +00 44 1299 266800 (office hours only)

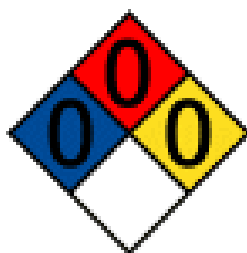
2: Hazards identification

2.1. Classification of the substance or mixture

The product is not classified according to the Globally Harmonized System (GHS).

2.2. Label elements

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



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HMIS-ratings (scale 0 - 4)

HEALTH	0
FIRE	0
REACTIVITY	0

2.3. 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

3.2. Mixtures

Chemical characterization: Substances Ferro Cerium Lighter Flints
Product name: Lighter Flints
Components

Reference	Type	Percentage
	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%

4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes.

Ingestion: Wash out mouth with water.

Inhalation: Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media:

Dry sand

Fire-extinguishing powder

Special powder for metal fires.

Do not use water

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In case of fire, the following can be released: Toxic metal oxide smoke

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid formation of dust. Keep away from ignition sources

6.2. Environmental precautions

Environmental precautions: No special measures required

6.3. Methods and material for containment and cleaning up

Clean-up procedures: 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.

6.4. 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

7.1. Precautions for safe handling

Handling requirements: 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.

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Keep away from oxidizing agents.

Finely distributed particles may be flammable or explosive.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Store away from flammable substances.

Do not store together with acids.

Store away from oxidizing agents.

Store away from water.

7.3. Specific end use(s)

Specific end use(s): No data available.

8. Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNEL

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
Dermal	LT syst.Effects	(General Population) No hazard identified
	Acute local effects	(General Population) No hazard identified
Inhalative	Acute syst. Effects	(Human (worker) No hazard identified
		(General Population) No hazard identified
	LT local effects	(General Population) No hazard identified
	LT syst. effects	(General Population) No hazard identified
	Acute local effects	(Human (worker) No hazard identified
	Acute syst. Effects	(General Population) No hazard identified
	DNEL acute effects	(General Population) No hazard identified
DNEL local effects	(Human (worker) No hazard identified	
	LT local effects	(Human (worker) No hazard identified

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Irritation of eyes	LT syst. Effects	(General Population) No hazard identified
	Local effects	(General Population) No hazard identified (Human (worker) No hazard identified (General Population) No hazard identified (Human (worker) No hazard identified

PNEC

7440-45-1 Cerium	
PNEC STP	60.9 mg/l (Microorganisms (activated sludge)) (OECD 209 (Activated Sludge, Resp. Inhibition Test)) Test material: Dicerium tricarbonat 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.

8.2. Exposure controls

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.

Eye protection: Safety glasses

Body protection: Protective work clothing

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

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. 38.0

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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/cm³ (54.243 lbs/gal)

Solubility in / Miscibility with Water: Insoluble.

Partition coefficient (n-octanol/water): Not determined

Viscosity: Dynamic: Not determined

Kinematic: Not determined

9.2. Other information

Other information: Not applicable.

10. Stability and reactivity

10.1. Reactivity.

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Reacts with strong oxidizing agents. Reacts with water and acids.

10.4. Conditions to avoid

Conditions to avoid: No further relevant information available.

10.5. Incompatible materials

Materials to avoid: Keep away from water. Keep away from oxidising agents and acidic substances

10.6. Hazardous decomposition products

Haz. decomp. 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

11.1. 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 tricarbonat Lambert CE, Barnum EC, Shapiro R (1993)
	NOAEL	150 mg/kg bw/day (rat (Sprague-Dawley)) (OECD Guideline 422)

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Inhalative	LC50/4 h	Repeated dose toxicity oral Test material: Dicerium tricarbonate Target organs: digestive: stomach 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; EU 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 (carcinogenicity, mutagenicity and toxicity for reproduction) Not determined

12. Ecological information

12.1. 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 Bättscher Roger (2007)
LC50/48h	> 100 mg/l (Daphnia magna) (OECD Guideline 202; EU Method C.2) Test material: Dicerium tricarbonate Bättscher R (2007b)
LC50/96h	> 100 mg/l (Oncorhynchus mykiss) (OECD Guideline 203; EU Method C.1) Test material: Dicerium tricarbonate Bättscher 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

12.2. Persistence and degradability

Not determined

12.3. Bioaccumulative potential

Not determined

12.4. Mobility in soil

No further relevant information available.

12.5. Results of PBT and vPvB assessment

PBT identification: Not applicable.

12.6. Other adverse effects

Other adverse effects: No further relevant information available.

13 Disposal Considerations

13.1. Waste treatment methods

Disposal operations: 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.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal

14. Transport information

Transport class: This product does not require a classification for transport.

Further information The product is not classified as dangerous for carriage.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

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 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

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

16. Other Information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Relevant phrases

H250 Catches fire spontaneously if exposed to air.

H260 In contact with water releases flammable gases which may ignite spontaneously.

Department issuing MSDS:

HSE Department

Chemical Management

Date of preparation / last revision 03/26/2014 / 8

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)

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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

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.