

SAFETY DATA SHEET

SXDNA010

Issue date 31st May, 2022
Revision 6

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name	SXDNA010
Trade Name	SXDNA010
Product code	SXDNA010
CAS No.	Not applicable
EC No.	Not applicable
REACH Registration No.	Not applicable

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

Identified Use(s)	Metal/X-Ray detectable additive mixture.
Uses Advised Against	Do not use for private purposes (household).

1.3 Details of the supplier of the safety data sheet

Supplier:

Company Identification	Radical Materials Ltd.
Address of Supplier	Unit 10 Rassau Industrial Estate, Ebbw Vale, Blaenau Gwent, Wales, United Kingdom
Postal code	NP23 5SD
Telephone:	+44 (0)1495 211 400
Fax	+44 (0)1495 211 404
E-mail	info@radicalmaterials.com

RADICAL MATERIALS LTD

UNIT 10 RASSAU INDUSTRIAL ESTATE, EBBW VALE, GWENT, NP23 5SD, UNITED KINGDOM

T: +44 (0) 1495 211400

E: info@radicalmaterials.com

Company Reg.: 04996264

1.4 Emergency telephone number

Emergency Phone No.

England, Wales, Scotland: Dial 111

Northern Ireland: Contact local GP or Pharmacist

Republic of Ireland: 01 809 2166

Contact

National Poisons Information Services:

<http://www.npis.org/>

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP)

Eye Irrit. 2 :Causes serious eye irritation.

STOT SE 3 :May cause respiratory irritation

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Eye Irrit. 2 :Causes serious eye irritation.

STOT SE 3 :May cause respiratory irritation.

Hazard Pictogram(s)



GHS07

Signal Word(s)

Warning

Hazard Statement(s)

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

Precautionary Statement(s)

P261: Avoid breathing dust.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

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P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312: Call a POISON CENTER/doctor if you feel unwell.

P337+P313: If eye irritation persists: Get medical advice/attention.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P501: Dispose of contents in accordance with local, state or national legislation.

2.3 Other hazards

The substance does not meet the criteria for PBT or vPvB substance. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

2.4 Additional Information

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT(S)	CAS No.	EINICS No.	%W/W	Symbol R-Phrases
Iron	7439-89-6	231-096-4	>50	-
Chromium	7440-47-3	231-157-5	>5	-
Silicon	7440-21-3	231-130-8	<1	-
Manganese	7439-96-5	231-105-1	<1	-
Carbon	7440-44-0	231-153-3	<0.03	-
Proprietary detectable	-	-	>25	-

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SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Move to fresh air. If symptoms persist, call a physician.
Skin Contact	Take off contaminated clothing. Wash skin with soap and water.
Eye Contact	Remove contact lenses. Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water. If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: irritation of the eyes and respiratory tract, skin irritation, asthma, allergic symptoms, breathing difficulties, allergic contact dermatitis, other symptoms are possible

4.3 Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions)

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media	Use: Dry powder, dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Keep containers and surroundings cool with water spray. Confining and smothering metal fires is preferable rather than applying water.
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Unsuitable extinguishing media

Molten metal may react violently with water. Avoid having molten iron run onto or trap water under molten iron. Sudden violent release of steam and gases can occur when water is trapped under molten iron. Do not use water, CO₂ or foam on molten metal.

5.2 Special hazards arising from the substance or mixture

Decomposes in a fire giving off toxic fumes

5.3 Advice for fire-fighters

Avoid run off to waterways and sewers. Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe dust. Provide adequate ventilation. Keep away from sources of ignition. Avoid contact with skin, eyes or clothing.

6.2 Environmental precautions

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body. Prevent entry into drains.

6.3 Methods and material for containment and cleaning up

Sweep up spilled substance and remove to safe place. Use vacuum equipment for collecting spilt materials, where practicable. Collect as much as possible in clean container for reuse or disposal. Dispose of this material and its container to hazardous or special waste collection point. Avoid raising dust.

6.4 Reference to other sections

See Also Section 8, 13

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle and open container with care. Avoid raising dust. Do not breathe dust. Avoid contact with heat and ignition sources. Accumulated dust dispersed in air may cause dust explosion if ignited

Advice on general occupational hygiene: Avoid inhalation, ingestion and contact with skin and eyes. General occupational hygiene measures are required to ensure safe handling of the substance. The measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating and smoking at the workplace. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature: Room temperature 5-20°C
Storage life: Stable under normal conditions. Keep away from direct sunlight. Store in a dry place. Store in a tightly closed container.
Incompatible materials: None known
Keep away from strong acids or strong oxidizers and reducers, open flames, hot surfaces or sources of ignition

7.3 Specific end use(s)

Additive

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTCL (8 hr TWA ppm)	LTCL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note

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Graphite particulate inhalable dust	7440-44-0		10			
Graphite particulate respirable dust	7440-44-0		4			
Silicon total inhalable	7440-21-3		10			
Silicon respirable dust	7440-21-3		4			
Manganese and its inorganic compounds (as Mn) - Inhalable fraction	7439-96-5		0.2			
Manganese and its inorganic compounds (as Mn) - Respirable fraction	7439-96-5		0.05			
Manganese and inorganic manganese compounds (as manganese)	7439-96-5	0	0.2	0	0	IOELV, (8.1)
Manganese and inorganic manganese compounds (as manganese)	7439-96-5	0	0.05	0	0	IOELV, (7.1)
Chromium	7440-47-3		0.5			
Chromium Metal, Inorganic Chromium (II) Compounds and Inorganic Chromium (III) Compounds (insoluble)	7440-47-3	0	2	0	0	IOELV

Region Source
EU EU Occupational Exposure Limits
United KingdomUK Workplace Exposure Limits EH40/2005 (Third edition, published 2018)

Remark Notes
IOELV Indicative Occupational Exposure Limit Values.
(8.1) Inhalable fraction.
(7.1) Respirable fraction.

Proprietary Detectable
WEL (UK)
4mg/m³ (respirable dust)
10mg/m³ (total dust)

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8.2 Exposure controls

Appropriate engineering controls

If occupational exposure limit value is suspected to be reached or dust levels are high, exposure measurement is recommended. Use local exhaust ventilation if the dust concentration is high. Ensure adequate ventilation, especially in confined areas.

Personal protection equipment

Wear gloves, eye protection and an approved dust mask if dust is generated during handling.



Eye Protection

Wear eye protection with side protection (EN166)



Skin protection

Where long sleeves, in case of long term handling butyl or nitrile gloves should be used



Respiratory protection

Half mask with particle filter P3 shall be worn if exposure limit value is suspected to be exceeded or the dust is disturbed

Thermal hazards

None known

Environmental Exposure Controls

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body. Dust from exhaust ventilation should be separated out in order to avoid release to the environment.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Powder
	Colour: Light grey
Odour	None
Odour threshold	Not applicable
pH	Not known
Melting point/freezing point	Not known
Initial boiling point and boiling range	Not known
Flash Point	Not applicable
Evaporation rate	Not known
Flammability (solid, gas)	Not known
Upper/lower flammability or explosive limits	Not known
Vapour pressure	Not known
Vapour density	Not known
Relative density	Not known
Solubility(ies)	Solubility (Water) : No data available Solubility (Other) : No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	Not known
Decomposition Temperature (°C)	Not known
Viscosity	Not known
Explosive properties	Not known
Oxidising properties	Not known

9.2 Other information

VOC content %	Not applicable
Bulk Density	Not known
Fine Fraction	Not known
Dust explosion class	Not known

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity Stable under normal conditions

10.2 Chemical Stability Stable under normal conditions

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10.3 Possibility of hazardous reactions	May react explosively when heated with strong reducing agents such as powdered aluminium, phosphorus, potassium metal etc.
10.4 Conditions to avoid	Avoid generating dust, fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. Electrostatic charge. Avoid exposure to water and moist air.
10.5 Incompatible materials	Avoid contact with acids and alkalis. Avoid contact with oxidising substances and strong reducing agents.
10.6 Hazardous decomposition product(s)	Metal Oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

General	The principal risk to human health is related to the concentration of dust in the air acting as a nuisance dust. The higher the concentration of dust the greater the risk of irritation to the respiratory system and mechanical irritation to the eyes.
Acute Toxicity	The product is not toxic for skin, inhalation or ingestion
Skin corrosion/irritation	Not classified according to the criteria of the Globally Harmonized System (GHS).
Serious Eye Damage/Eye Irritation	Self classification: Causes serious eye irritation
Respiratory or skin sensitization	Not sensitising.
STOT - single exposure	Not classified according to the criteria of the Globally Harmonized System (GHS). Self classification: May cause respiratory irritation.
STOT - repeated exposure	Not classified according to the criteria of the Globally Harmonized System (GHS).

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Germ Cell Mutagenicity	No data available
Carcinogenicity	Not considered to be a carcinogen

11.2 Other information

Not known

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Not known
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12.2. Persistence and Degradation	Not known
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12.3. Bioaccumulative potential	Not known
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12.4. Mobility in soil	Not known
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12.5. Results of PBT and vPvB assessment	Not known
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12.6 Other adverse effects	None anticipated
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SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product disposal

This product is not classified as hazardous waste according to directive 2008/98/EC and national or regional provisions.

Packaging disposal

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According to directive 94/62/EC on packaging and packaging waste carefully emptied packaging can be incinerated.

Other information

Waste codes should be assigned by the user based on the application for which the product was used.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation

SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous for transport

SECTION 15: REGULATORY INFORMATION

15.1 European Regulations

Authorisations and/or Restrictions on Use

Authorisations Not required

Restrictions on use See section 1.2 Uses advised against

Other EU regulations The product is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant

15.2 National regulations

SECTION 16: OTHER INFORMATION

Hazard classification

Eye Irrit. 2 : Serious eye damage/irritation, Category 2

STOT SE 3_H335 : Specific target organ toxicity – single exposure, Category 3

Hazard Statement(s)

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H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

Precautionary Statement(s)

P261: Avoid breathing dust.
P264: Wash hands and exposed skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTER/doctor if you feel unwell.
P337+P313: If eye irritation persists: Get medical advice/attention.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of contents in accordance with local, state or national legislation.

Acronyms

CAS : Chemical Abstracts Service
CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL : Derived No Effect Level
EC : European Community
EINECS : European Inventory of Existing Commercial Chemical Substances
LTEL : Long term exposure limit
PBT : Persistent, Bioaccumulative and Toxic
PNEC : Predicted No Effect Concentration
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL : Short term exposure limit
STOT : Specific Target Organ Toxicity
vPvB : very Persistent and very Bioaccumulative

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