Safety Data Sheet

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This product is defined as an article under REACH and does not require a Safety Data Sheet under Article 31 of Regulation (EC) No. 1907/2006. Since an SDS is not required, this document does not contain all of the information that is required for substance and mixture SDSs under REACH.

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006) as amended by Regulation (EU) 2020/878

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
3M Lead Foil Tape 420

Product Identification Numbers

70-0063-8828-7	70-0063-8830-3	70-0063-8831-1	70-0063-9094-5
7000001315	7000049101	7000001314	7000049135

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

Identified uses
Industrial use.

1.3. Details of the supplier of the safety data sheet

Address: 3M Ireland Limited, 70 SIR JOHN ROGERSON'S QUAY, D02R296 DUBLIN 2
Telephone: +353 1 280 3555
E Mail: ner-productstewardship@mmm.com
Website: www.3M.com

1.4. Emergency telephone number
+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

CLASSIFICATION:
This material is exempt from hazard classification according to Regulation (EC) No. 1272/2008, as amended, on classification, labelling, and packaging of substances and mixtures.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008
Not applicable

2.3. Other hazards

Dermal contact with 3M's lead foil tapes may result in exposure to lead. Observe precautions included in Section 8 of the SDS when using this material.

SECTION 3: Composition/information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
lead powder; [particle diameter < 1 mm]	(CAS-No.) 7439-92-1 (EC-No.) 231-100-4	85 - 95	Repr. 1A, H360FD Lact., H362 Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=100 STOT RE 2, H373
Natural rubber	(CAS-No.) 9006-04-6 (EC-No.) 232-689-0	1 - 5	Resp. Sens. 1, H334 Skin Sens. 1, H317
TIN	(CAS-No.) 7440-31-5 (EC-No.) 231-141-8	< 2	Substance with a Union workplace exposure limit
rosin	(CAS-No.) 8050-09-7 (EC-No.) 232-475-7	< 2	Skin Sens. 1B, H317
Zinc	(CAS-No.) 7440-66-6 (EC-No.) 231-175-3	< 2	Aquatic Acute 1, H400,M=1 Aquatic Chronic 1, H410,M=10
zinc oxide	(CAS-No.) 1314-13-2 (EC-No.) 215-222-5	< 0.5	Aquatic Acute 1, H400,M=1 Aquatic Chronic 1, H410,M=1

Please see section 16 for the full text of any H statements referred to in this section

Specific Concentration Limits

Ingredient	Identifier(s)	Specific Concentration Limits
lead powder; [particle diameter < 1 mm]	(CAS-No.) 7439-92-1 (EC-No.) 231-100-4	(C >= 0.03%) Repr. 1A, H360D

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact
Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If swallowed
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
No critical symptoms or effects. See Section 11.1, information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media
Material will not burn. Use a fire fighting agent suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

5.3. Advice for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2

and 11 of the SDS.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling
For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Avoid contact during pregnancy/while nursing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators…) as required. After handling, wash hands with a soap that is specifically formulated to remove lead from the surface of the skin.

7.2. Conditions for safe storage including any incompatibilities
Store away from oxidising agents.

7.3. Specific end use(s)
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	Identifier(s)	Agency	Limit type	Additional comments
zinc oxide	1314-13-2	Ireland OELs	TWA(Respirable fraction & fume)(8 hours):2 mg/m3;STEL(Respirable fraction & fume)(15 minutes):10 mg/m3	
lead powder; [particle diameter < 1 mm]	7439-92-1	Ireland OELs	TWA(8 hours):0.15 mg/m3	Known human reproductive tox
TIN	7440-31-5	Ireland OELs	TWA(8 hours):2 mg/m3	as Sn
Rosin core solder pyrolysis products	8050-09-7	Ireland OELs	TWA(8 hours):0.05 mg/m3;STEL(15 minutes):0.15 mg/m3	AIR, total respirable, Resp/Dermal sensitizer
Natural rubber	9006-04-6	Ireland OELs	TWA(as inhalable allergenic proteins)(8 hours):0.0001 mg/m3	

Ireland OELs : Ireland. OELs
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

Biological limit values

Ingredient	Identifier(s)	Agency	Determinant	Biological Specimen	Sampling Time	Value	Additional comments
Lead and its ionic compounds	7439-92-1	EU Binding BLVs	lead powder; [particle diameter < 1 mm]	Blood	DFLT	70 ug/100ml	

EU Binding BLVs : EU. Directive 98/24/EC: on the protection of workers from the risks related to chemical agents at work, Annex II Binding Biological Limit Values and Health Surveillance Measures
DFLT: Default.

Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety glasses with side shields.

Applicable Norms/Standards
Use eye protection conforming to EN 16321

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Nitrile rubber.	0.11	4-8 hours

The glove data presented are based on the substance driving dermal toxicity and the conditions present at the time of testing. Breakthrough time may be altered when the glove is subjected to use conditions that place additional stress on the glove.

Applicable Norms/Standards
Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part

of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards
Use a respirator conforming to EN 140 or EN 136: filter type P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid.
Specific Physical Form:	Tape
Colour	Silver
Odor	Slight Rubber
Odour threshold	*Not applicable.*
Melting point/freezing point	*No data available.*
Boiling point/boiling range	*Not applicable.*
Flammability	Not applicable.
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Flash point	No flash point
Autoignition temperature	*Not applicable.*
Decomposition temperature	*Not applicable.*
pH	*substance/mixture is non-soluble (in water)*
Kinematic Viscosity	*Not applicable.*
Water solubility	*Not applicable.*
Solubility- non-water	*Not applicable.*
Partition coefficient: n-octanol/water	*Not applicable.*
Vapour pressure	*Not applicable.*
Relative density	*Not applicable.*
Relative Vapour Density	*Not applicable.*
Particle Characteristics	*Not applicable.*

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds	*No data available.*
Evaporation rate	*Not applicable.*
Molecular weight	*Not applicable.*
Percent volatile	*Not applicable.*

SECTION 10: Stability and reactivity

10.1 Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid
None known.

10.5 Incompatible materials
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	Condition
Carbon monoxide	Not specified.
Carbon dioxide.	Not specified.
Oxides of Lead	Not specified.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from internal hazard assessments.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
Allergic respiratory reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. May cause additional health effects (see below).

Skin contact
May be harmful in contact with skin. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact
Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Ingestion
Physical Blockage: Signs/symptoms may include cramping, abdominal pain, and constipation. Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:
May accumulate in the body.

Single exposure may cause target organ effects:
Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate.

Prolonged or repeated exposure may cause target organ effects:
Ocular effects: Signs/symptoms may include blurred or significantly impaired vision. Hard tissue effects: Signs/symptoms may include colour changes in the teeth and nails, changes in development of bone, teeth or nails, weakening of the bones, and hair loss. Hematopoietic effects: Signs/symptoms may include generalised weakness, fatigue and alterations in numbers of circulating blood cells. Gastrointestinal Effects: Signs/symptoms may include abdominal pain, stomach upset, nausea,

vomiting and diarrhea. Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate. Kidney/Bladder effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm. Contains a chemical or chemicals which may interfere with lactation or be harmful to breastfed children.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >2,000 - =5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
lead powder; [particle diameter < 1 mm]	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Natural rubber	Dermal		LD50 estimated to be > 5,000 mg/kg
Natural rubber	Ingestion		LD50 estimated to be > 5,000 mg/kg
TIN	Dermal	Rat	LD50 > 2,000 mg/kg
TIN	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 4.75 mg/l
TIN	Ingestion	Rat	LD50 > 2,000 mg/kg
rosin	Dermal	Rabbit	LD50 > 2,500 mg/kg
rosin	Ingestion	Rat	LD50 7,600 mg/kg
zinc oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
zinc oxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.7 mg/l
zinc oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Zinc	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.41 mg/l
Zinc	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
lead powder; [particle diameter < 1 mm]	similar compounds	No significant irritation
Natural rubber	Human	Mild irritant
TIN	Rabbit	No significant irritation
rosin	Rabbit	No significant irritation
zinc oxide	Human and animal	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
lead powder; [particle diameter < 1 mm]	similar compounds	Mild irritant
Natural rubber	Rabbit	No significant irritation
TIN	Rabbit	No significant irritation
rosin	Rabbit	Mild irritant
zinc oxide	Rabbit	Mild irritant
Zinc	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
Natural rubber	Human	Sensitising
rosin	Guinea pig	Sensitising
zinc oxide	Guinea pig	Not classified

Respiratory Sensitisation

Name	Species	Value
Natural rubber	Human	Sensitising
rosin	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
lead powder; [particle diameter < 1 mm]	In vivo	Some positive data exist, but the data are not sufficient for classification
Natural rubber	In Vitro	Some positive data exist, but the data are not sufficient for classification
zinc oxide	In Vitro	Some positive data exist, but the data are not sufficient for classification
zinc oxide	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
lead powder; [particle diameter < 1 mm]	Not specified.	official classification	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
lead powder; [particle diameter < 1 mm]	Not specified.	Toxic to female reproduction	Human	LOAEL 10 ug/dl blood	
lead powder; [particle diameter < 1 mm]	Not specified.	Toxic to male reproduction	Human	LOAEL 37 ug/dl blood	
lead powder; [particle diameter < 1 mm]	Not specified.	Toxic to development	Human	NOAEL Not available	
zinc oxide	Ingestion	Not classified for reproduction and/or development	Multiple animal species	NOAEL 125 mg/kg/day	premating & during gestation

Lactation

Name	Route	Species	Value
lead powder; [particle diameter < 1 mm]	Not specified.	Human	Causes effects on or via lactation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
lead powder; [particle diameter < 1 mm]	Ingestion	nervous system	May cause damage to organs	Human	LOAEL 90 ug/dl blood	poisoning and/or abuse
lead powder; [particle diameter < 1 mm]	Ingestion	heart	Not classified	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
lead powder; [particle diameter < 1 mm]	Inhalation	kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 60 ug/dl blood	occupational exposure
lead powder; [particle diameter < 1 mm]	Inhalation	hematopoietic system	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 50 ug/dl blood	occupational exposure
lead powder; [particle diameter < 1 mm]	Inhalation	gastrointestinal tract | nervous system	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 40 ug/dl blood	occupational exposure
lead powder; [particle diameter < 1 mm]	Inhalation	heart | endocrine system | immune system | vascular system	Not classified	Human	NOAEL Not available	occupational exposure
lead powder; [particle diameter < 1 mm]	Ingestion	bone, teeth, nails, and/or hair	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 20 ug/dl blood	3 months
lead powder; [particle diameter < 1 mm]	Ingestion	eyes	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 0.5 mg/kg/day	20 days
lead powder; [particle diameter < 1 mm]	Ingestion	gastrointestinal tract	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 60 ug/dl blood	environmental exposure
lead powder; [particle diameter < 1 mm]	Ingestion	hematopoietic system | kidney and/or bladder	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 40 ug/dl blood	environmental exposure
lead powder; [particle diameter < 1 mm]	Ingestion	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	LOAEL 11 ug/dl blood	environmental exposure
lead powder; [particle diameter < 1 mm]	Ingestion	auditory system | heart | endocrine system | vascular system	Not classified	Human	NOAEL Not available	environmental exposure
zinc oxide	Ingestion	nervous system	Not classified	Rat	NOAEL 600 mg/kg/day	10 days
zinc oxide	Ingestion	endocrine system | hematopoietic system | kidney and/or bladder	Not classified	Other	NOAEL 500 mg/kg/day	6 months

Aspiration Hazard
For the component/components, either no data is currently available or the data is not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

11.2. Information on other hazards

Not applicable.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.

Material	Identifier(s)	Organism	Type	Exposure	Test endpoint	Test result
lead powder; [particle diameter < 1 mm]	7439-92-1	Fathead minnow	Analogous Compound	96 hours	LC50	0.0408 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Green algae	Analogous Compound	72 hours	ErC50	0.0205 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Water flea	Analogous Compound	48 hours	LC50	0.026 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Giant Pond Snail	Analogous Compound	30 days	EC10	0.0017 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Green algae	Analogous Compound	72 hours	ErC10	0.006 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Rainbow trout	Analogous Compound	570 days	EC10	0.009 mg/l
lead powder; [particle diameter < 1 mm]	7439-92-1	Activated sludge	Analogous Compound	24 hours	IC10	1.06 mg/l
Natural rubber	9006-04-6	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
rosin	8050-09-7	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
rosin	8050-09-7	Zebra Fish	Experimental	96 hours	LL50	>1 mg/l
rosin	8050-09-7	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
rosin	8050-09-7	Activated sludge	Experimental	3 hours	EC50	>10,000 mg/l
rosin	8050-09-7	Bacteria	Experimental	N/A	EC50	76.1 mg/l
TIN	7440-31-5	Fathead minnow	Estimated	96 hours	LC50	>100 mg/l
TIN	7440-31-5	Green algae	Estimated	72 hours	EC50	>100 mg/l
TIN	7440-31-5	Green algae	Estimated	72 hours	NOEC	100 mg/l
Zinc	7440-66-6	Green algae	Analogous Compound	72 hours	EC50	0.042 mg/l
Zinc	7440-66-6	Rainbow trout	Analogous Compound	96 hours	LC50	0.169 mg/l
Zinc	7440-66-6	Water flea	Analogous Compound	48 hours	EC50	0.06 mg/l
Zinc	7440-66-6	Algae or other aquatic plants	Analogous Compound	72 hours	NOEC	0.01 mg/l
Zinc	7440-66-6	Fish	Analogous Compound	27 days	NOEC	0.025 mg/l
Zinc	7440-66-6	Green algae	Analogous Compound	72 hours	NOEC	0.005 mg/l
Zinc	7440-66-6	Invertebrate	Analogous Compound	24 days	NOEC	0.0056 mg/l
Zinc	7440-66-6	Rainbow trout	Analogous Compound	30 days	NOEC	0.039 mg/l

Zinc	7440-66-6	Water flea	Analogous Compound	7 days	NOEC	0.013 mg/l
Zinc	7440-66-6	Activated sludge	Analogous Compound	3 hours	EC50	5.2 mg/l
Zinc	7440-66-6	Activated sludge	Analogous Compound	4 hours	IC50	0.35 mg/l
Zinc	7440-66-6	Red Clover	Analogous Compound	24 days	NOEC	32 mg/kg (Dry Weight)
Zinc	7440-66-6	Springtail	Analogous Compound	28 days	EC10	14.6 mg/kg (Dry Weight)
Zinc	7440-66-6	White worm	Analogous Compound	42 days	EC10	35.7 mg/kg (Dry Weight)
zinc oxide	1314-13-2	Activated sludge	Estimated	3 hours	EC50	6.5 mg/l
zinc oxide	1314-13-2	Green algae	Estimated	72 hours	EC50	0.052 mg/l
zinc oxide	1314-13-2	Rainbow trout	Estimated	96 hours	LC50	0.21 mg/l
zinc oxide	1314-13-2	Water flea	Estimated	48 hours	EC50	0.07 mg/l
zinc oxide	1314-13-2	Green algae	Estimated	72 hours	NOEC	0.006 mg/l
zinc oxide	1314-13-2	Water flea	Estimated	7 days	NOEC	0.02 mg/l

12.2. Persistence and degradability

Material	Identifier(s)	Test type	Duration	Study Type	Test result	Protocol
lead powder; [particle diameter < 1 mm]	7439-92-1	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Natural rubber	9006-04-6	Data not availbl-insufficient	N/A	N/A	N/A	N/A
rosin	8050-09-7	Experimental Biodegradation	28 days	CO2 evolution	89 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
TIN	7440-31-5	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Zinc	7440-66-6	Data not availbl-insufficient	N/A	N/A	N/A	N/A
zinc oxide	1314-13-2	Data not availbl-insufficient	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	Identifier(s)	Test type	Duration	Study Type	Test result	Protocol
lead powder; [particle diameter < 1 mm]	7439-92-1	Experimental BCF - Invertebrate		Bioaccumulation factor	1553	
Natural rubber	9006-04-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
rosin	8050-09-7	Analogous Compound BCF - Fish	20 days	Bioaccumulation factor	<=129	
rosin	8050-09-7	Experimental Bioconcentration		Log Kow	6.2	OECD 117 log Kow HPLC method
TIN	7440-31-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Zinc	7440-66-6	Analogous Compound BCF - Fish	70 days	Bioaccumulation factor	457	
zinc oxide	1314-13-2	Experimental BCF - Fish	56 days	Bioaccumulation factor	≤217	OECD305-Bioconcentration

12.4. Mobility in soil

Material	Identifier(s)	Test type	Study Type	Test result	Protocol
rosin	8050-09-7	Modeled Mobility in Soil	Koc	124 l/kg	ACD/Labs ChemSketch™

12.5. Results of the PBT and vPvB assessment

Not applicable

12.6. Endocrine disrupting properties

Not applicable

12.7. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)
160303* Inorganic wastes containing dangerous substances

SECTION 14: Transportation information

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 - UN Number or ID number	UN3077	UN3077	UN3077
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(LEAD)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(LEAD)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(LEAD)
14.3 Transport hazard class(es)	9	9	9
14.4 Packing group	III	III	III
14.5 Environmental hazards	Not Environmentally Hazardous	Not applicable.	Not a Marine Pollutant

14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	M7	Not applicable.	Not applicable.
IMDG Segregation Code	Not applicable.	Not applicable.	NONE

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient	Identifier(s)	Classification	Regulation
lead powder; [particle diameter < 1 mm]	7439-92-1	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Authorization status under REACH:
The following substance/s contained in this product might be or is/are subject to authorization in accordance with REACH:

Ingredient	Identifier(s)
lead powder; [particle diameter < 1 mm]	7439-92-1

Authorization status: listed in the Candidate List of Substances of Very High Concern for Authorization

Global inventory status
Contact 3M for more information.

DIRECTIVE 2012/18/EU
Seveso hazard categories, Annex 1, Part 1
None

Seveso named dangerous substances, Annex 1, Part 2
None

Regulation (EU) No 649/2012

Chemical	Identifier(s)	Annex I
lead powder; [particle diameter < 1 mm]	7439-92-1	Part 1

15.2. Chemical Safety Assessment
Not applicable.

SECTION 16: Other information

List of relevant H statements

H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H360FD	May damage fertility. May damage the unborn child.
H362	May cause harm to breast-fed children.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Revision information:
Section 14 - Not Hazardous for Transportation information was added.
EU Section 14 - Table Data information was added.
EU Section 14 - Table Headers information was added.
BLV Reg Agency Desc information was added.
Section 8: BLV table information was added.
Section 8: BLV information was deleted.
Legend description information was added.
Section 8: Occupational exposure limit table information was modified.
Section 9: Vapour pressure value information was added.
Section 9: Vapour pressure value information was deleted.
Section 14 Classification Code – Main Heading information was deleted.
Section 14 Classification Code – Regulation Data information was deleted.
Section 14 Control Temperature – Main Heading information was deleted.
Section 14 Control Temperature – Regulation Data information was deleted.
Section 14 Emergency Temperature – Main Heading information was deleted.
Section 14 Emergency Temperature – Regulation Data information was deleted.
Section 14 Hazard Class + Sub Risk – Main Heading information was deleted.
Section 14 Hazard Class + Sub Risk – Regulation Data information was deleted.
Section 14 Other Dangerous Goods – Main Heading information was deleted.
Section 14 Other Dangerous Goods – Regulation Data information was deleted.
Section 14 Packing Group – Main Heading information was deleted.
Section 14 Packing Group – Regulation Data information was deleted.
Section 14 Proper Shipping Name information was deleted.
Section 14 Regulations – Main Headings information was deleted.
Section 14 Segregation – Regulation Data information was deleted.
Section 14 Segregation Code – Main Heading information was deleted.
Section 14 Special Precautions – Main Heading information was deleted.
Section 14 Special Precautions – Regulation Data information was deleted.
Section 14 Transport in bulk – Regulation Data information was deleted.
Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was deleted.
Section 14 UN Number Column data information was deleted.
Section 14 UN Number information was deleted.

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you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

3M Ireland MSDSs are available at www.3M.com