



SAFETY DATA SHEET

MATERION

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

1.1. Product identifier

Name of the substance Manganese Niobate
Identification number 234-775-3 (EC number)
Registration number -
Document number 2NV
Synonyms None.
Materion Code 2NV
Issue date 25-June-2020

1.3. Details of the supplier of the safety data sheet

Supplier

Company name Materion Advanced Chemicals Inc.
Address 407 N. 13th Street
1316 W. St. Paul Avenue
Milwaukee, WI 53233
United States
Division Milwaukee
Telephone 414.212.0257
e-mail advancedmaterials@materion.com
Contact person Laura Hamilton

1.4. Emergency telephone number

Version number 01

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

Identified uses Not available.
Uses advised against None known.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended

Hazard summary Causes eye irritation. Causes skin irritation. May cause irritation to the respiratory system.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Manganese Niobate

Hazard pictograms



Signal word Warning

Hazard statements

H315 May cause respiratory irritation.
H320 Causes skin irritation.
H320 Causes eye irritation.

Precautionary statements

Prevention

P260 In case of insufficient ventilation, wear suitable respiratory equipment.
Do not breathe dust/fume/gas/mist/vapours/spray.
P270 Do not eat, drink or smoke when using this product.
P264 Wash thoroughly after handling.

Response

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

P302 + P352
P301 + P330 + P331
P304 + P340
P308 + P313

IF ON SKIN: Wash with plenty of soap and water.
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF exposed or concerned: Get medical advice/attention.

Storage

P402 + P404 Store in a dry place. Store in a closed container.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information

None.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Manganese Niobate	100	12032-69-8 234-775-3	-	-	#
Classification:	Skin Irrit. 2;H315				

SECTION 4: First aid measures

General information

IF exposed or concerned: Get medical advice/attention.

4.1. Description of first aid measures

Inhalation

Move into fresh air and keep at rest.

Skin contact

Wash skin thoroughly with soap and water.

Eye contact

Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses.

Ingestion

Never give anything by mouth to an unconscious person. Drink a few glasses of water or milk. Induce vomiting, if person is conscious. Get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Irritant effects.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards

Not available.

5.1. Extinguishing media

Suitable extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

None known.

5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters

Wear self-contained breathing apparatus and protective clothing.

Special firefighting procedures

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid inhalation of dust and contact with skin and eyes. Wear necessary protective equipment.

For emergency responders

Not available.

6.2. Environmental precautions

Avoid discharge into drains.

6.3. Methods and material for containment and cleaning up

Isolate area. Avoid the generation of dusts during clean-up. Sweep up or vacuum up spillage and collect in suitable container for disposal.

6.4. Reference to other sections

Not available.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Do not breathe dust/fume. Provide good ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Container must be kept tightly closed. Keep container in a well-ventilated place.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits****Belgium. Exposure Limit Values.**

Material	Type	Value
Manganese Niobate (CAS 12032-69-8)	TWA	0,2 mg/m ³

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Material	Type	Value
Manganese Niobate (CAS 12032-69-8)	STEL	3 mg/m ³
	TWA	0,3 mg/m ³

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Material	Type	Value
Manganese Niobate (CAS 12032-69-8)	MAC	0,5 mg/m ³

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Material	Type	Value
Manganese Niobate (CAS 12032-69-8)	TWA	5 mg/m ³

Czech Republic. OELs. Government Decree 361

Material	Type	Value
Manganese Niobate (CAS 12032-69-8)	Ceiling	2 mg/m ³
	TWA	1 mg/m ³

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,2 mg/m ³	Total dust.
		0,1 mg/m ³	Respirable dust.

Finland. Workplace Exposure Limits

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,2 mg/m ³	Inhalable dust.
		0,02 mg/m ³	Respirable.

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,2 mg/m ³	Inhalable fraction.
		0,02 mg/m ³	Respirable fraction.

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	AGW	0,2 mg/m ³	Inhalable fraction.
		0,02 mg/m ³	Respirable fraction.

Greece. OELs (Decree No. 90/1999, as amended)

Material	Type	Value
Manganese Niobate (CAS 12032-69-8)	TWA	5 mg/m ³

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	STEL	5 mg/m ³	Total dust.

Ireland. Occupational Exposure Limits

Material	Type	Value
Manganese Niobate (CAS 12032-69-8)	TWA	0,2 mg/m ³

Italy. Occupational Exposure Limits

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,2 mg/m ³	Inhalable fraction.
		0,05 mg/m ³	Respirable fraction.

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	1 mg/m ³	Inhalable fraction.
		0,5 mg/m ³	Respirable fraction.

Norway. Administrative Norms for Contaminants in the Workplace

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TLV	1 mg/m ³	Inhalable fraction.
		0,1 mg/m ³	Respirable fraction.

Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,2 mg/m ³	Inhalable fraction.
		0,05 mg/m ³	Respirable fraction.

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,1 mg/m ³	Inhalable fraction.
		0,02 mg/m ³	Respirable fraction.

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Material	Type	Value
Manganese Niobate (CAS 12032-69-8)	TWA	0,5 mg/m ³

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,5 mg/m ³	Inhalable fraction.

Spain. Occupational Exposure Limits

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,2 mg/m ³	Inhalable fraction.
		0,05 mg/m ³	Respirable fraction.

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,2 mg/m ³	Inhalable dust.
		0,05 mg/m ³	Respirable dust.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,5 mg/m ³	Inhalable fraction.

UK. EH40 Workplace Exposure Limits (WELs)

Material	Type	Value
Manganese Niobate (CAS 12032-69-8)	TWA	0,5 mg/m ³

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Material	Type	Value	Form
Manganese Niobate (CAS 12032-69-8)	TWA	0,2 mg/m ³	Inhalable fraction.
		0,05 mg/m ³	Respirable fraction.

Biological limit values

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

Material	Value	Determinant	Specimen	Sampling Time
Manganese Niobate (CAS 12032-69-8)	20 µg/l	Mangan	Blood	*

* - For sampling details, please see the source document.

Recommended monitoring procedures

Not available.

Derived no effect levels (DNELs)

Not available.

Predicted no effect concentrations (PNECs)

Not available.

8.2. Exposure controls

Appropriate engineering controls

Adequate ventilation should be provided so that exposure limits are not exceeded. Minimise dust generation and accumulation.

Individual protection measures, such as personal protective equipment

General information

WORK PRACTICES: Develop work practices and procedures that prevent particulate from coming in contact with worker skin, hair, or personal clothing. If work practices and/or procedures are ineffective in controlling airborne exposure or visual particulate from deposition on skin, hair, or clothing, provide appropriate cleaning/washing facilities. Procedures should be written that clearly communicate the facility's requirements for protective clothing and personal hygiene. These clothing and personal hygiene requirements help keep particulate from being spread to non-production areas or from being taken home by the worker. Never use compressed air to clean work clothing or other surfaces.

Fabrication processes may leave a residue of particulate on the surface of parts, products or equipment that could result in employee exposure during subsequent material handling activities. As necessary, clean loose particulate from parts between processing steps. As a standard hygiene practice, wash hands before eating or smoking.

To prevent exposure, remove surface scale or oxidation formed on cast or heat treated products in an adequately ventilated process prior to working the surface.

Eye/face protection

Wear safety glasses with side shields.

Skin protection

- Hand protection

Use protective gloves.

- Other

Wear necessary protective equipment.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Not available.

Hygiene measures

Not available.

Environmental exposure controls

Not available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state

Solid.

Form

Not available.

Colour

Yellowish

Odour

Not available.

Odour threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

Not available.

Flammability limit - upper (%)

Not available.

Vapour pressure

Not available.

Vapour density

Not available.

Relative density

Not available.

Solubility(ies)

Solubility (water)

Not available.

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

Not available.

Explosive properties

Not available.

Oxidising properties Not available.

9.2. Other information

Molecular formula MnNb2O6

SECTION 10: Stability and reactivity

10.1. Reactivity Not available.

10.2. Chemical stability Not available.

10.3. Possibility of hazardous reactions Not available.

10.4. Conditions to avoid Not available.

10.5. Incompatible materials Not available.

10.6. Hazardous decomposition products Not available.

SECTION 11: Toxicological information

General information Not available.

Information on likely routes of exposure

Inhalation Not available.

Skin contact Not available.

Eye contact Not available.

Ingestion Not available.

Symptoms Not available.

11.1. Information on toxicological effects

Acute toxicity No data available.

Skin corrosion/irritation Not available.

Serious eye damage/eye irritation Not available.

Respiratory sensitisation Not available.

Skin sensitisation Not available.

Germ cell mutagenicity Not available.

Carcinogenicity

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

Reproductive toxicity Not available.

Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure Not available.

Aspiration hazard Not available.

Mixture versus substance information Not available.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity No toxicity data noted for the ingredient(s).

12.2. Persistence and degradability Not available.

12.3. Bioaccumulative potential Not available.

Partition coefficient n-octanol/water (log Kow) Not available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil Not available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.
EU waste code	Not available.
Disposal methods/information	Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

National regulations Not available.

15.2. Chemical safety assessment Not available.

SECTION 16: Other information

List of abbreviations Not available.

References Not available.

Training information Not available.