

SAFETY DATA SHEET

Regulation (EC) No 1907/2006 (REACH), Article 31 Revision date: 14-Dec-2023

Version: 11

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product code: CESFORMSOL

Product name: Cesium Formate Solution (2.20-2.36 g/cm3)

REACH registration number: 01-0000000312-89

Synonyms: CsCOOH-H2O, Cesium Formate Fluid, Cesium Formate Solution

UFI: YJPV-N0TW-9008-Q3FH

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

Recommended use: Drilling & completion fluids: Industrial Products

Identified Uses and corresponding Exposure Scenarios (ES):

ES1: Handling of Cesium Formate Brine products at oil/gas well sites,

ES2: Transport/Transfer of Cesium Formate Brine products; ES3: Recycling and Disposal of Cesium Formate Brine products

Uses advised against:None known. However incompatibility with some materials has been reported. Please

refer to our Formate Technical Manual section B7 and the section 10 of this safety data

sheet.

1.3. Details of the supplier of the safety data sheet

Sinomine Specialty Fluids Sinomine Specialty Fluids Ocean House

K12, 5347 Kystbasen Hareness Circle

Agotnes, Bergen Norway Altens Industrial Estate Aberdeen

Tlf: (+47) 55707052 AB12 3LY SCOTLAND

Tel: (+44) 1224-897229

E-mail address: enquire@sinominecorp.com

1.4. Emergency telephone number

Emergency Telephone Number: 24H/7d service - Reference Access code: 335324

VERISK Europe: +44 8 08 189 0979 VERISK UK: 0 800 680 0425 VERISK US: +1 760 476 3961

Norway Poison Center: 22 59 13 00

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity – Oral	Category 4 - (H302)
Serious eye damage/eye irritation:	Category 2 - (H319)
Reproductive toxicity	Category 2 - (H361f)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)

2.2. Label Elements





Signal Word: WARNING

Hazard statements:

H302 - Harmful if swallowed

H319 - Causes serious eye irritation

H361f - Suspected of damaging fertility

H373 - May cause damage to organs (kidneys, adrenals, nervous system, blood) through prolonged or repeated exposure

Precautionary statements:

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P260 - Do not breathe mist/vapor/spray

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P308 + P313 - IF exposed or concerned: Get medical advice/attention

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

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

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P330 - Rinse mouth

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P405 - Store locked up

P501 - Dispose of contents/container in accordance with local, regional, national and international regulations

2.3. Other Hazards

Principle Routes of Exposure: Eye contact, Skin Contact, Inhalation

Skin Contact: May cause irritation. Avoid contact with skin.

Inhalation: Due to its liquid state, this material is not expected to be a significant inhalation hazard.

Aerosols or dried product may be irritating to respiratory tract. Do not breathe

dust, vapors or mist.

Ingestion: Adverse effects on multiple organ systems were observed in animals following

repeated oral exposure to cesium formate. However, these effects would not be

expected under normal handling conditions. See Section 11.

Reproductive Effects: Male Reproductive System. See Section 11.

Carcinogenicity: Does not contain any substances listed by IARC (International Agency for Research on

Cancer), NTP (National Toxicology Program), OSHA (Occupational Safety and Health Administration), ACGIH (American Conference of Governmental Industrial Hygienists)

or EU (European Union). See also Section 11.

Target Organ Effects: Eyes, Skin, Respiratory system, Kidney, Adrenal gland

Medical Conditions Aggravated by

Exposure: Respiratory disorder, Adrenal gland disorders

Potential Environmental Effects: None known. See Section 12.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not Applicable

3.2 Mixtures

Chemical name	EC No:	CAS No	weight-%	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Cesium Formate	222-492-8	3495-36-1	80-85	Xn;R48/22 Xi;R36	Acute Tox. 4 - H302; Eye Irr. 2 - H319; Repro 2 - H361; STOT RE 2 - H373	01-0000000312-89
Water	231-791-2	7732-18-5	15-20	-	-	*
Carbonate and bicarbonate salts of sodium and/or potassium	-	VARIOUS	0-5	-	-	-

Other Information:

Cesium Formate may contain up to 5% of "other alkali formates" as impurities resulting from our production process. Those alkali formates are not intentionally added in our cesium formate brine but are part of our substance "Cesium Formate" (per the definition of a substance in Article 3 of the REACH Regulation) and cannot be removed from the material. Those impurities have been tested as part of our product.

4. FIRST AID MEASURES

4.1. Description of first aid measures

Skin Contact Wash thoroughly with soap and water. Remove contaminated clothing and shoes.

Seek medical attention if redness, swelling, itching, or burning occurs.

Eye contact Flush eyes immediately with large amounts of water for 15 minutes. Seek

medical attention if redness, swelling, itching, burning or visual disturbances

occur.

Inhalation If cough, shortness of breath or other breathing problems occur, move to fresh air.

Seek medical attention if symptoms persist. If necessary, restore normal breathing

through standard first aid measures.

Ingestion Do not induce vomiting. If conscious, give several glasses of water. Never give

anything by mouth to an unconscious person. Seek medical attention.

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

Symptoms: The most important known symptoms and effects are described in Section 2 and/or in

Section 11.

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

Note to physicians: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment. Use foam, carbon dioxide (CO2), dry chemical or water

spray. A fog is recommended if water is used.

Unsuitable Extinguishing Media: None known.

5.2. Special hazards arising from the substance or mixture

specific hazards arising from the chemical: Burning produces irritant fumes.

Hazardous combustion products: Carbon monoxide (CO). Carbon dioxide (CO2). Oxides of Cesium.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Wear suitable protective equipment. In the event of fire, wear self-

contained breathing apparatus.

^{*} ExemptThe hyphen (-) means "not applicable".

Risk of Dust Explosion: Not Applicable: Cesium Formate Brine is an aqueous solution.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid formation of dust and aerosols. Ensure adequate ventilation. Use personal

protective equipment. See also Section 8.

For emergency responders: Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental Precautions: Contain spill if safe to do so. Local authorities should be advised if significant spillages

cannot be contained. See also Section 13.

6.3. Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up:Soak up with inert absorbent material. Pick up and transfer to properly labelled

containers. See Section 13.

6.4. Reference to other sections

Reference to other sectionsSee section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Do not breathe

aerosols or dust from dried material. Provide appropriate exhaust ventilation at machinery and at places where dust, aerosol, or mist can be generated. Avoid ingestion.

Avoid prolonged or repeated exposure.

General hygiene considerations: Wash the hands and the face carefully after handling. Contaminated clothes have to be

changed and washed before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly

labeled containers. Do not store together with strong oxidizing agents.

Incompatible materials: Strong oxidizing agents, Platinum catalysts. NBR or Viton type elastomers at high

temperature and long exposure times.

7.3. Specific end use(s)

Risk Management Measures (RMM) See Exposure Scenarios.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure guidelines: There are no exposure limits identified for this product.

Derived No Effect Level (DNEL) Cesium formate: Exposure via oral route is unlikely under normal foreseeable

conditions of uses.

DNEL - INHALATION for workers: 0.53 mg/m³ DNEL - DERMAL for workers: 0.08 mg/kg bw/d

PNEC aqua - freshwater: 0.1 mg/L; PNEC aqua - marine: 2.6 mg/L; PNEC

aqua - intermittent releases: 1 mg/L; PNEC sediment: 6.7mg/kg d.w.

8.2. Exposure controls

Engineering Controls: Ensure adequate ventilation to minimize exposures.

Personal protective equipment [PPE]

Respiratory Protection: Approved respirator may be necessary if local exhaust ventilation is not adequate.

Respiratory protection in accordance with EN 149 and OSHA 1910.134.

Hand Protection: Wear suitable gloves (in accordance with EN 374 and OSHA 1910.138): Impervious gloves.

Nitrile rubber gloves. PVC or rubber gloves. PVC or other plastic material gloves.

Eye/face Protection: Eye / face protection in accordance with EN 166 and OSHA 1910.133: Wear safety

glasses with side shields (or goggles). Wear face-shield if splashes are likely to occur.

Skin and Body Protection: Wear chemical impervious protective clothing if skin contact may occur.

Other: Handle in accordance with good industrial hygiene and safety practice.

Emergency eyewash and safety shower should be located nearby.

No information available

Environmental exposure controls: In accordance with all local legislation and permit requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:LiquidOdor:None.Appearance:Colorless LiquidOdor threshold:Not

Applicable **Color:** Colorless

Property Values Remarks • Method

pH: 9 - 11 (measured in 1:10 dilution with water) **Melting point/freezing point:** 0 - 5.1 °C According to OECD 102/EU Method A.1

Boiling point / boiling range: 112 °C - 145 °C See Sinomine Specialty Fluid's Formate Technical Manual

Evaporation Rate: < 0 @ 20 °C

Vapor pressure: 400 - 2250 Pa acc. to OECD 104

Vapor Density:

Density: 1.58-2.30 g/cm3

Bulk Density: No information available

Specific Gravity at 20°C: 1.58-2.30 @ 15.6 °C See Sinomine Specialty Fluid's Formate Technical

Manual 1.38 2.30

Water solubility: 84.6 - 86.6% @ 20+/- 0,5 °C

Solubility(ies):

See Sinomine Specialty Fluid's Formate Technical Manual

Partition Coefficient (n-octanol/water):

< -2.20 No potential to bioconcentrate

Decomposition temperature: > 200 °C See Sinomine Specialty Fluid's Formate Technical Manual

Viscosity: 1.7 - 10 cP @ 20

°C

Kinematic viscosity:

available Dynamic viscosity:

No information

No

information available Oxidizing Properties: Mild reducing agent, which

when in contact with oxidants, can react

vigourously

Softening point: Not

Applicable

VOC content (%):

Applicable

% Volatile (by Volume): No information

available

% Volatile (by Weight): No information

available

Surface Tension: 72.4 mN/m at 21.0 ± 0.5 °C for a 1.04 g/l

solution.

Explosive properties: Not Applicable. Aqueous solution with low vapour pressure

No chemical groups associated with flammable or explosive

properties

Flash Point: Not Applicable. **Flammability** (solid, gas): **Flammability** Limit Not Applicable in Air: Not flammable **Explosion** Limits in Air Upper (g/m^3) : **Applicable Explosion** Limits in Air Lower (g/m³): Not Applicable **Autoignition** Temperature: Not Not Applicable. Minimum Ignition Temperature:

Not Applicable

Minimum Ignition Energy: Not

Applicable

Ignition Energy: No information

available

Maximum Absolute Explosion Pressure: Not Maximum Pressure Rise: Applicable Rate of Not Applicable Burn Velocity: Value: Not **Applicable** Kst **Applicable** Dust **Explosion** Classification: Not

Not Applicable

"No information available" indicates testing has not been performed. Endpoint is listed "Not Applicable"due to the nature of the product: Aqueous solution with low vapour pressure

10. STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity: Reacts with strong oxidizers.

10.2. Chemical stability

Stability: Stable under recommended handling and storage conditions.

Explosion data

Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: None.

10.3. Possibility of hazardous reactions

Hazardous polymerization: Hazardous polymerization does not occur.

Possibility of hazardous reactions: None under normal processing.

10.4. Conditions to avoid

Conditions to avoid: Avoid contact with strong oxidizing agents. During long exposures to high temperatures,

and in contact with certain catalysts, some liberation of gasses (H2 and CO) might occur. The greatest risk exists when dry formate powder is contacted by a platinum catalyst. Users are advised to obtain the Sinomine Specialty Fluid's (CSF) Formate Technical Manual, Section A13 from a CSF representative for more detailed information on conditions to avoid. CSF does not recommend retorting formate solutions to determine

solids content as temperatures may exceed 500 °C. The use of rupture disks is recommended as a precautionary measure when conducting heat aging of formate

solutions at temperatures above 150 °C.

10.5. Incompatible materials

Incompatible materials: Strong oxidizing agents, Platinum catalysts, NBR or Viton type elastomers at

high temperature and long exposure times

10.6. Hazardous decomposition products

Hazardous decomposition products: Carbon dioxide (CO2), Carbon monoxide (CO), Oxides of Cesium

11. TOXICOLOGICAL INFORMATION

Information given is based on data obtained from this substance or from similar substances.

11.1. Information on toxicological effects

Acute toxicity

Oral LD50: LD50/oral/rat > 300 mg/kg and < 2000 mg/kg. (OECD 401 and OECD 420).

Inhalation LC50: No data are available on the product itself

Dermal LD50: LD50/dermal/rat = >2000 mg/kg (OECD 402)

Skin corrosion/irritation: Skin irritation test, rabbit (OECD 404): Not irritating.

Serious eye damage/eye irritation: Primary eye irritation test in rabbit (OECD 405): Irritating to eyes.

Sensitization: Not sensitizing based on Local Lymph Node Assay (OECD 429).

Mutagenicity: Not mutagenic in Ames test. (OECD 471). Negative in chromosome aberration test

in human lymphocytes. (OECD 473). Negative in mouse lymphoma assay. (OECD

476).

Carcinogenicity: Does not contain any substances listed by IARC (International Agency for Research on

Cancer), NTP (National Toxicology Program), OSHA (Occupational Safety and Health Administration), ACGIH (American Conference of Governmental Industrial Hygienists)

or EU (European Union).

Reproductive Toxicity: Effects observed in ovaries and testes at 500 mg/kg/d in a 28-day oral repeated dose

study in rats. No effects were observed on reproductive organs at the two lower

doses (150 and 15 mg/kg/d).

Based on a 90-day oral repeated dose toxicity study (OECD 408) on a similar substance

(cesium chloride), this product is classified as Reproductive Toxicity Category 2 - suspected of damaging fertility. Male and female rats were used in the study. Effects on reproductive organs and reproductive cycles were seen only in males. The reproductive effects were generally secondary to other toxic effects on adrenals and kidneys. The No Observed Adverse Effect Level (NOAEL) for reproductive effects is equivalent to 10 mg

Cs/kg bodyweight/day.

Developmental toxicity:Based on the results of a Prenatal Developmental Toxicity Study (OECD 414) on a similar

substance (cesium hydroxide), this product is not considered a developmental toxicant.

STOT - single exposure: Effects on the central nervous system were observed in rats following a single oral

exposure to 1250 mg/kg and higher.

STOT - repeated exposure: In a 28-day oral study in rats, effects were observed in multiple organ systems at the high

dose (500 mg/kg/d). Signs of neurotoxicity were also observed. Elevated reticulocyte count and effects on the heart, liver, spleen and serum biochemistry were observed at the middle dose (150 mg/kg/d). Elevated reticulocyte count was the only effect observed

at the low dose (15 mg/kg/d). (OECD 407).

Based on a 90-day oral repeated dose toxicity study (OECD 408) on a similar substance (cesium chloride), this product is classified as STOT-RE Category 2 - may cause damage to multiple organs (kidneys and adrenals) through prolonged or repeated exposure. The No Observed Adverse Effect Level (NOAEL) for kidney and adrenal effects is equivalent to 10

mg Cs/kg bodyweight/day.

Aspiration Hazard: Based on industrial experience and available data, no aspiration hazard is expected.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Aquatic Toxicity: MARINE

Pacific oyster (Crassostrea gigas) EC50 (24 hr) = 1200 mg/l Marine copepod (Acartia tonsa) EC50 (48 hr) = 340 mg/l

Marine algae (Skeletonema costatum) EbC50 (72 hr) = 710 mg/l; ErC50 (0-72hr) = 1600

mg/l; NOEC = 320mg/l

Brown shrimp (Crangon crangon) LC50 (96 hr) = 875 mg/l Juvenile turbot (Scopthalmus maximus) LC50 (96 hr) = 260 mg/l Ctenogobius gymnauchen LC50 (96 hr) = 861.5 mg/l Amphipod (Corophium volutator) LC50 (10 day) = 6653 mg/kg Mysid shrimp (Mysidopsis bahia) LC50 (48 hr) = 521 mg/l

Mysid shrimp (Mysidopsis bahia) IC25 growth (7 day) = 260 mg/l, NOEC growth = 252

mg/l; IC25 survival (7 day) = 359 mg/l, NOEC survival = 420 mg/l Inland Silverside (Menidia beryllina) LC50 (96 hr) = 787 mg/l

Inland Silverside (Menidia beryllina) IC25 growth (7 day) = 440 mg/l, NOEC growth = 252

mg/l; IC25 survival (7 day) = 471 mg/l, NOEC survival = 420 mg/l.

FRESHWATER

Zebra fish (Brachydanio rerio) LC50 (96 hr) >100 mg/l

Rainbow trout (Oncorhynchus mykiss) LC50 (96 hr) = 2100 mg/l

Water flea (Daphnia magna) EC50 (48 hr) > 100 mg/l

Freshwater algae (Desmodesmus subspicatus, formerly Scenedesmus subspicatus)

ErC50 (0-72 hr) = 110 mg/l; NOEC = 56 mg/l

Freshwater algae (Pseudokirchneriella subcapitata, formerly Selenastrum

capricornutum) ErC50 (0-72 hr) = 110 mg/l; NOEC = 18 mg/l.

Other Information: In the majority of marine species, this material has not demonstrated toxicity and has

received a rating of GOLD/SILVER/SILVER for drilling products and GOLD for Completion/Workover products under the PARCOM Harmonized Offshore and

Chemical Notification Format (HOCNF)

12.2. Persistence and degradability

READILY BIODEGRADABLE

Ready Biodegradability in Sea Water - Closed Bottle Test (OECD Method 306) = 79% degradation after 28 days Ready Biodegradability in Sea Water - Closed Bottle Test (OECD Method 306) = 66% degradation after 28 days Ready Biodegradability in Freshwater - Closed Bottle Test (OECD Method 301D) = 83% degradation after 28 days Ready Biodegradability in Freshwater - Closed Bottle Test (OECD Method 301D) = 79% degradation after 28 days

12.3. Bioaccumulative potential

Log Pow = < - 2,20 (no potential to bioconcentrate). See also Section 9.

12.4. Mobility in soil

Mobility: No information available.

12.5. Results of PBT and vPvB

assessment

Cesium formate is not considered to be a PBT or a vPvB substance.

12.6. Other adverse effects

No other data are available.

13. DISPOSAL CONSIDERATIONS

Disclaimer: Information in this section pertains to the product as shipped in its intended composition as described in Section 3 of this SDS. Contamination or processing may change waste characteristics and requirements. Regulations may also apply to empty containers, liners or rinsate. State/provincial and local regulations may be different from federal regulations. The person generating waste must determine its proper classification

13.1. Waste treatment methods

Waste from residues/unused products:

Product, as supplied, should be disposed of in accordance with the regulations issued by the appropriate federal, state and local authorities. Same consideration should be given to containers and packaging.

Other Information: Waste codes should be assigned by the user based on the application for which the

product was used. The unused material would be considered a hazardous waste under

EU Directives.

14. TRANSPORT INFORMATION

DOT	
14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
IMDG	
14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
RID	
14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
<u>ADR</u>	
14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
ICAO (air)	
14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
<u>IATA</u>	
14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
IMO IBC Code:	Cesium Formate - Provisionally assessed as: Pollution Category Z, Ship Type 3, with
	1199

15. REGULATORY INFORMATION

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

additional requirement 15.19.6.

European Union

Indication of danger: Product is a hazardous preparation/mixture according to EC-directive 1999/45/EC and its various amendments and adaptations and EC-Regulation 1272/2008 (CLP) and amendments.

National Regulations

Germany Water hazard class (WGK): Not determined **Swiss Poison class:** Not determined

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory Complies **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of

Notified Chemical Substances Complies

ENCS - Japan Existing and New Chemical Substances Does not comply **IECSC** - China Inventory of Existing Chemical Substances Does not comply **KECL** - Korean Existing and Evaluated Chemical Substances Does not comply PICCS - Philippines Inventory of Chemicals and Chemical Substances Does not comply

AICS - Australian Inventory of Chemical Substances Complies

NZIoC - New Zealand Inventory of Chemicals Does not comply

TCSI - Taiwan Chemical Substance Inventory Complies

Note: Sinomine Specialty Fluids holds a low volume notification certificate from China and is allowed to import Cesium Formate substance up to 10 tonnes per year.

15.2. Chemical safety assessment

EU Chemical Safety Assessment: Per Article 14.1 of the REACH Regulation a Chemical Safety Assessment has been carried out: Cesium formate.

EU Exposure Scenarios: Exposure scenarios are available in the SDS appendix.

16. OTHER INFORMATION

Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R48/22 Xi; R36 Xn - Harmful Xi - Irritant

Full text of R-phrases referred to under sections 2 and 3

R36 - Irritating to eyes

R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed

References: MARPOL 73/78, Latest edition of Marine Environment Protection Committee (MEPC) Circulars MEPC.2/Circular, IBC Code, IMO Resolution A.673(16) Guidelines for the Transport and Handling of Limited Amounts of Hazardous and Noxious Liquid Substances in bulk on Offshore Support Vessels.

Contacts:

Manufacturing Site

Tantalum Mining Corporation of Canada, Ltd. Bernic Lake Box 2000

Lac du Bonnet, MB ROE 1A0

CANADA

Tel: 1-204-884-2400 Fax: 1-204-884-2211

Disclaimer:

The information set forth is based on information that Sinomine Specialty Fluids believes to be accurate. No warranty, expressed or implied, is intended. The information is provided solely for your information and consideration and Sinomine Specialty Fluids assumes no legal responsibility for use or reliance thereon. In the event of a discrepancy between the information on the non-English document and its English counterpart, the English version shall supersede.

Prepared by: Sinomine Specialty Fluids - Safety, Health and Environmental Affairs

Revision date: 14-Dec-2023

Version: 11

Reason for Revision: UFI Information added

Previous Revision Date: 15-May-2023

End of Safety Data Sheet