SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Nickelkromets - Kromets Sitek - MC2

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

1.1. Product identifier

Product form : Mixture

Product name : Nickelkromets - Kromets Sitek - MC2

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

Relevant identified uses

Main use category : Professional use

Use of the substance/mixture : Electronics chemical

Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Sunchem AB
Box 69
S-433 21 Partille Sweden
T +46 31 447310
purchasing@sunco.se - www.sunchem.se

Manufacturer

Sunchem AB
Box 69
S-433 21 Partille Sweden
T +46 31 447310
purchasing@sunco.se - www.sunchem.se

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Newcastle Unit)	Claremont Place Newcastle-upon-Tyne, Newcastle	+44 191 2606182 +44 191 2606180	Hours of operation: 24hrs

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Corr.1B	H314
Acute Tox. 3	H331
Skin Sens 1A	H317
Eye Dam. 1	H318
Aquatic Chronic 2	H411

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

Signal word (CLP) :Danger
Contains :Ammonium cerium(IV) nitrate; nitric acid

Hazard statements (CLP) :H314 - Causes severe skin burns and eye damage.
H317– May cause an allergic skin reaction.
H331- Toxic if inhaled.
H411- Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) :P260 - Do not breathe mist, spray, vapours.
P264 - Wash hands thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective clothing, protective gloves, eye protection/face protection.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water /shower.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P310 - Immediately call a POISON CENTER or doctor/physician.
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
P501 - Dispose of contents/container to an approved waste disposal plant.

EUH-statements :EUH071 - Corrosive to the respiratory tract.

2.3. Other hazards

Other hazards which do not result in classification :None under normal conditions.
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
nitric acid (Note B)	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23	< 20	Ox. Liq. 2, H272 Skin Corr. 1A, H314 Acute Tox 3, H331
Ammonium cerium(IV) nitrate	(CAS-No.) 16774-21-3 (EC-No.) 240-827-6 (REACH-no) 01-2119971819-18	10 – 15	Ox. Sol. 3, H272 Met Corr. 1, H290 Acute Tox 4, H302 Skin Sens 1A, H317 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1; H410 M=1

Specific concentration limits:

Name	Product identifier	Specific concentration limits
nitric acid	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23	(5 ≤C < 20) Skin Corr. 1B, H314 (20 ≤C < 100) Skin Corr. 1A, H314 (65 ≤C < 99) Ox. Liq. 3, H272 (99 ≤C < 100) Ox. Liq. 2, H272

Note B : Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.
Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Wash with plenty of soap and water. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.

First-aid measures after eye contact	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	:	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Chemical burns must be treated by a physician.

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

Symptoms/effects	:	Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	:	Corrosive to the respiratory tract.
Symptoms/effects after eye contact	:	Causes serious eye damage.

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

Chemical burns must be treated by a physician. In case of accident or if you feel unwell, take contact with doctor and show this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media :Use extinguishing media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	Non flammable.
Hazardous decomposition products in case of fire	:	Very corrosive gases/vapours/fumes. Nitrogen oxides.

5.3. Advice for firefighters

Firefighting instructions	:	Do not enter fire area without proper personal protective equipment, including respiratory protection (EN137). Exercise caution when fighting any chemical fire. Containers close to fire should be removed immediately or cooled with water. Use water spray or fog for cooling exposed containers. Prevent fire fighting water from entering the environment.
Protection during firefighting	:	Wear self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Ensure adequate ventilation, especially in confined areas. Avoid contact with skin and eyes. Do not breathe vapour. Use personal protective equipment as required.

6.1.1. For non-emergency personnel

Protective equipment	:	Wear appropriate personal protective equipment - see Section 8.
Emergency procedures	:	Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Equip cleanup and emergency crew with proper protection.
Emergency procedures	:	Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Clean up spills at once.

6.3. Methods and material for containment and cleaning up

For containment : Collect all waste in suitable and labelled containers and dispose according to local legislation.

Methods for cleaning up : Never pour spill back in original packaging for reuse.
. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Post clean with water.

6.4. Reference to other sections

For further information refer to section 13. See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Corrosive storage.

Precautions for safe handling : Ensure adequate ventilation. Avoid inhalation of vapours. Never add water to acid!. Do not breathe mist, spray, vapours. Avoid contact during pregnancy/while nursing.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep cool. Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use.

Incompatible materials : Bases.

Packaging materials : Do not store in corrodable metal.

7.3. Specific end

use(s) No additional

data.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

nitric acid (7697-37-2)	
United Kingdom - Occupational Exposure Limits	
Local name	Nitric acid
WEL STEL (OEL STEL)	2.6 mg/m³
WEL STEL (OEL STEL) [ppm]	1 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Eye wash facilities and emergency shower must be available when handling this product.

8.2.2. Personal protection equipment

Personal protective equipment:
Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment. Avoid all unnecessary exposure. Gloves. Protective goggles.

8.2.2.1. Eye and face protection

Eye protection:
Chemical goggles or face shield. STANDARD EN 166.

8.2.2.2. Skin protection

Skin and body protection: Wear suitable protective clothing

Hand protection:
Wear protective gloves. Viton. 4H. Neoprene. Butyl rubber. Breakthrough time : 6 (> 480 minutes). Layer thickness : 0,2 - 0,4 mm. STANDARD EN 374.

8.2.2.3. Respiratory protection

Respiratory protection:
In case of inadequate ventilation wear respiratory protection. Use respiratory equipment with

combination filter, type B/P2. EN 14387 **8.2.2.4. Thermal hazards**

No additional information available

8.2.3. Environmental exposure controls

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Yellow.
Odour	:	Stinging. slight.
Odour threshold	:	Not determined.
Melting point	:	Not determined.
Freezing point	:	0 °C
Boiling point	:	Not determined.
Flammability	:	Non flammable.
Explosive properties	:	Product is not explosive.
Oxidising properties	:	Non flammable.
Explosive limits	:	Not determined.
Lower explosive limit (LEL)	:	Not available
Upper explosive limit (UEL)	:	Not available
Flash point	:	Not determined.
Auto-ignition temperature	:	Not determined.
Decomposition temperature	:	Not determined.
pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Very soluble in water.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Partition coefficient n-octanol/water (Log Pow)	:	Not determined.
Vapour pressure	:	Not determined.
Vapour pressure at 50 °C	:	Not available
Density	:	1.09 g/cm³ @ 20 °C
Relative density	:	Not determined.
Relative vapour density at 20 °C	:	Not determined.
Particle size	:	Not applicable
Particle size distribution	:	Not applicable
Particle shape	:	Not applicable
Particle aspect ratio	:	Not applicable
Particle aggregation state	:	Not applicable
Particle agglomeration state	:	Not applicable
Particle specific surface area	:	Not applicable
Particle dustiness	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid strong heating.

10.5. Incompatible materials

Bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) Not classified
Acute toxicity (inhalation) : Toxic if inhaled

ATE oral: > 2000 mg/kg
ATE dermal > 2000 mg/kg
ATE inhalation: Ca 1-2 mg/l (4h)

Ammoniumcerium(IV)nitrate (16774-21-3)	
LD50 oral rat	300-2000 mg/kg

Nitric acid (7697-37-2)	
LC50 inhalation rat (vapour - mg/l/4h)	0,18 mg/l/4u

Skin corrosion/irritation : Causes severe skin burns.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Additional information : Based on available data, the classification criteria are not met
Germ cell mutagenicity : Not classified
Additional information : Based on available data, the classification criteria are not met
Carcinogenicity : Not classified
Additional information : Based on available data, the classification criteria are not met
Reproductive toxicity : Not classified
Additional information : Based on available data, the classification criteria are not met
STOT-single exposure : Not classified

Additional information	:	Corrosive to the respiratory tract.
STOT-repeated exposure	:	Not classified
Additional information	:	Based on available data, the classification criteria are not met
Aspiration hazard	:	Not classified
Additional information	:	Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties	:	The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Adverse health effects caused by endocrine disrupting properties		

11.2.2 Other information

Potential adverse human health effects and symptoms	:	Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	:	Not classified
Hazardous to the aquatic environment, long-term (chronic)	:	Toxic to aquatic life with long lasting effects.

nitric acid (7697-37-2)	
LC50 - Fish [1]	72 mg/l (96 hours - Gambusia affinis - Mosquito fish)

12.2. Persistence and degradability

Nickelkromets - Kromets Sitek - MC2	
Persistence and degradability	Componet(s) are biodegradable.

12.3. Bioaccumulative potential

Nickelkromets - Kromets Sitek - MC2	
Partition coefficient n-octanol/water (Log Pow)	Not determined.
Bioaccumulative potential	Not potentially bioaccumulable.

nitric acid (7697-37-2)	
Partition coefficient n-octanol/water (Log Pow)	-2.3

12.4. Mobility in soil

Nickelkromets - Kromets Sitek - MC2	
Ecology - soil	The product is water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Nickelkromets - Kromets Sitek - MC2
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Other adverse effects : None to our knowledge.

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose as hazardous waste.

Waste treatment methods : Do not discharge into drains.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to an approved waste disposal plant.

Additional information : The given LoW-code is a guiding, and the code depends on how the waste is formed. User must evaluate the choice of correct code.

Ecology - waste materials : Avoid release to the environment.

European List of Waste (LoW) code : 06 01 05* - nitric acid and nitrous acid
06 01 06* - other acids

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID /

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1760	UN 1760	UN 1760	UN 1760	UN 1760
14.2. UN proper shipping name				
CORROSIVE LIQUID, N.O.S. (nitric acid)	CORROSIVE LIQUID, N.O.S. (nitric acid)	Corrosive liquid, n.o.s. (nitric acid)	CORROSIVE LIQUID, N.O.S. (nitric acid)	CORROSIVE LIQUID, N.O.S. (nitric acid)
Transport documentbn descripti				
UN 1760 CORROSIVE LIQUID,	UN 1760 CORROSIVE LIQUID, N.O.S. (nitric acid), 8, I	UN 1760 Corrosive liquid, n.o.s. (nitric acid), 8, I	UN 1760 CORROSIVE LIQUID, N.O.S. (nitric acid), 8, I	UN 1760 CORROSIVE LIQUID, N.O.S. (nitric acid), 8, I

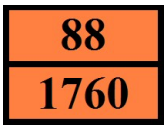
N.O.S. (nitric acid), 8, I, (E)				
14.3. Transports) hazard class(e				
8	8	8	8	8
				
14.4. Packing group				
I	I	I	I	I
14.5. Environmental hazards				
Dangerous for the environment : YES	Dangerous for the environment : YES Marine pollutant : YES	Dangerous for the environment : YES	Dangerous for the environment : YES	Dangerous for the environment : YES
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C9
Special provisions (ADR) : 274
Limited quantities (ADR) : 0
Excepted quantities (ADR) : E0

Orange plates :



EAC code : 2X
APP code : B

Transport by sea

Special provisions (IMDG) : 274
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B

Air transport

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Forbidden
Special provisions (IATA) : A3, A803

Inland waterway transport

Classification code (ADN) : C9
Special provisions (ADN) : 274
Limited quantities (ADN) : 0
Excepted quantities (ADN) : E0

Rail transport

Special provisions (RID) : 274
Limited quantities (RID) : 0
Excepted quantities (RID) : E0

Hazard identification number (RID) : 88

14.7. Maritime transport in bulk according to IMO instruments

IBC code :No IBC-code for bulk transport offshore (MARPOL).

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 **15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:

Met Corr 1	May be corrosive to metals
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Ox. Liq. 2	Oxidising Liquids, Category 2
Ox. Liq. 3	Oxidising Liquids, Category 3
Ox. Sol. 3	Oxidising Solids, Category 3
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Acute Tox 3	Acute Toxicity , Category 3
Acute Tox 4	Acute Toxicity , Category 4
Aquatic Acute 1	Hazardous to the aquatic environment , Category Acute 1
Aquatic Cronic 1	Hazardous to the aquatic environment Category Chronic 1

Skin Sens 1A Skin Sensitysers, Category 1, Sub-Category 1A

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction
H318	Causes serious eye damage.
H400	Very toxic to aquatic life
H331	Toxic if inhaled.
H410	Very toxic to aquatic life with long lasting effects
EUH071	Corrosive to the respiratory tract.