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CM-1000-G

SECTION 1: Identification

1.1 Product identifier

Trade name CM-1000-G
Product type: Corrosion Inhibitor
Alternative number(s) UN 2627

1.2 Uses advised against:

Relevant identified uses None identified
Industrial use

1.3 Details of the supplier of the safety data sheet

Chemical Methods, Inc
20338 Progress Drive
Cleveland, OH 44149
United States
Telephone: (216) 476-8400
Internet: www.chemicalmethods.com

1.4 Emergency telephone number

24 Hour Emergency Phone Numbers
TRANSPORT: CHEMTREC (800) 424-9300
Poison Control Center (877-671-4608)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Hazard class	Category
acute toxicity (oral)	4
serious eye damage/eye irritation	2
oxidizing solid	2

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger
- Pictograms



Hazard statements.

- May intensify fire; oxidizer.
- Harmful if swallowed.
- Causes serious eye irritation.

Precautionary statements.

Keep away from heat.
 Keep/store away from clothing/combustible materials.
 Take any precaution to avoid mixing with combustibles.
 Do not eat, drink or smoke when using this product.
 Wear protective gloves/eye protection/face protection.
 If swallowed: Call a poison center/doctor if you feel unwell.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Rinse mouth.
 If eye irritation persists: Get medical advice/attention.
 In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
 Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling Sodium nitrite

2.3 Other hazards

Hazards not otherwise classified

Toxic to aquatic life (GHS category 2: aquatic toxicity - acute).

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients
3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%
Sodium nitrite	CAS No 7632-00-0 71868-10-5	10 - < 25
Sodium carbonate	CAS No 497-19-8 6132-02-1 7440-23-5	1 - < 5

Exact percentage is a trade secret. Concentration range is provided to assist users in provided appropriate protections.

SECTION 4: First-aid measures
4.1 Description of first- aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Inhalation

If mist or vapor is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.

Skin contact

Remove contaminated clothing and footwear. For skin contact, flush with large amounts of water. Seek immediate medical attention.

Eye contact

In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes. Seek immediate medical attention.

Ingestion

Get immediate medical attention. DO NOT induce vomiting unless instructed by medical personnel. Give one to two glasses of water or milk. Never give anything by mouth to a victim that is unconscious or having convulsions.

4.2 Symptoms

See section 11.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use media appropriate for surrounding material.

5.2 Unusual fire or explosion hazards

This material is an aqueous mixture which will not burn.

Hazardous combustion products

Irritating and toxic gases or fumes may be released during a fire.

5.3 Special firefighting procedures

Wear self-contained breathing apparatus and full protective clothing, such as turn out gear.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not allow product to enter sewer or waterways. Wear appropriate protective equipment.

6.3 Clean-up methods

Absorb spill with inert material. Shovel material into proper container for disposal. Dispose of in accordance with federal, state, and local governmental regulations.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Handling

Recommendations

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid breathing mists of this product. Never add water to product. Add product slowly to water while stirring. Use caution. Heat may be generated. For industrial use only.

- Handling of incompatible substances or mixtures

- Keep away from

Organic absorbing material, Pulp/paper

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Storage

Keep container tightly closed and stored in well ventilated area away from incompatible materials. Protect from freezing. Ship and store above 40°F.

- Flammability hazards

Keep reduction valves/valves and fittings free from oil and grease.

- Incompatible substances or mixtures

Keep/store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)						
Name of agent	CAS No	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Source
particulates not otherwise classified						NIOSH REL
particulates not otherwise classified (PNOC)		1,766	15			29 CFR 1910.1000
particulates not otherwise classified (PNOC)		529.5	5			29 CFR 1910.1000
Particulates not otherwise regulated			10			Cal/OSHA PEL
Particulates not otherwise regulated			5			Cal/OSHA PEL

Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Sodium nitrite	7632-00-0 71868-10-5	DNEL	2 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Sodium nitrite	7632-00-0 71868-10-5	DNEL	2 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Sodium nitrite	7632-00-0 71868-10-5	PNEC	0.005 mg/l	aquatic organisms	freshwater	short-term (single instance)
Sodium nitrite	7632-00-0 71868-10-5	PNEC	0.006 mg/l	aquatic organisms	marine water	short-term (single instance)
Sodium nitrite	7632-00-0 71868-10-5	PNEC	21 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Sodium nitrite	7632-00-0 71868-10-5	PNEC	0.019 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Sodium nitrite	7632-00-0 71868-10-5	PNEC	0.022 mg/kg	aquatic organisms	marine sediment	short-term (single instance)

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Sodium nitrite	7632-00-0 71868-10-5	PNEC	0.001 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Engineering controls

Use local and general exhaust ventilation to remove any vapors or mists generated from the handling/use of this product.

Eye/face protection

Use safety goggle with side protection. Wear face shield if splashing is possible.

Skin protection

Chemical resistant impermeable gloves. Use of protective apron and boots are recommended.

Respiratory protection

If employed ventilation is not sufficient to satisfactorily protect from mists or vapors, appropriate NIOSH/MSHA respiratory protection should be provided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	solid
Color	yellow-orange
Odor	Mild

Other safety parameters

pH (value)	10 – 10.4
Melting point/freezing point	not determined
Initial boiling point and boiling range	not determined
Flash point	>100 °C
Evaporation rate	not determined
Flammability (solid, gas)	non-combustible
Vapor pressure	not determined
Density	1.079 g/cm ³
Vapor density	this information is not available

Solubility(ies)

- Water solubility	Complete
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Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	not determined
Viscosity	not relevant (solid matter)
Explosive properties	none
Oxidizing properties	oxidizer

9.2 Other information

Solvent content	0 %
Solid content	11 %

SECTION 10: Stability and reactivity
10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Oxidizing property.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.5 Incompatible materials

Oxidizers, Combustible materials

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information
11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Harmful if swallowed.

- Acute toxicity estimate (ATE)

Oral 1,000 mg/kg

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Sodium nitrite	7632-00-0 71868-10-5	oral	100 mg/kg

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information
12.1 Toxicity

Toxic to aquatic life.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Sodium nitrite	7632-00-0 71868-10-5	LC50	26.3 mg/l	fish	96 h
Sodium nitrite	7632-00-0 71868-10-5	EC50	15.4 mg/l	aquatic invertebrates	48 h
Sodium nitrite	7632-00-0 71868-10-5	ErC50	>100 mg/l	algae	72 h
Sodium carbonate	497-19-8 6132-02-1 7440-23-5	LC50	300 mg/l	fish	96 h
Sodium carbonate	497-19-8 6132-02-1 7440-23-5	EC50	227 mg/l	aquatic invertebrates	48 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations
13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number	2627
14.2 UN proper shipping name	Nitrites, inorganic, n.o.s.
14.3 Transport hazard class(es)	
Class	5.1 (oxidizing substances)
14.4 Packing group	II (substance presenting medium danger)
14.5 Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations
14.6 Special precautions for user	
There is no additional information.	
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	
The cargo is not intended to be carried in bulk.	

Information for each of the UN Model Regulations
Transport of dangerous goods by road or rail (49 CFR US DOT)

Index number	2627
Proper shipping name	Nitrites, inorganic, n.o.s.
- Particulars in the shipper's declaration	UN2627, Nitrites, inorganic, n.o.s., 5.1, II
- Reportable quantity (RQ)	1,000 lbs (454 kg) (Sodium nitrite)
Class	5.1
Packing group	II
Danger label(s)	5.1
	
Special provisions (SP)	33, IB8, IP2, IP4, T3, TP33
ERG No	140

International Maritime Dangerous Goods Code (IMDG)

UN number	2627
Proper shipping name	NITRITES, INORGANIC, N.O.S.
Class	5.1
Marine pollutant	-
Packing group	II
Danger label(s)	5.1



Special provisions (SP)	274, 900
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 kg
EmS	F-A, S-Q
Stowage category	A
Segregation group	12 - Nitrites and their mixtures

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number	2627
Proper shipping name	Nitrites, inorganic, n.o.s.
Class	5.1
Packing group	II
Danger label(s)	5.1



Special provisions (SP)	A33
Excepted quantities (EQ)	E2
Limited quantities (LQ)	2,5 kg

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) all ingredients are listed

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name acc. to inventory	CAS No	Remarks	Effective date
sodium nitrite	7632-00-0		1994-12-31

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
Sodium nitrite	7632-00-0		1	100 (45,4)
Sodium carbonate	7440-23-5		1	10 (4,54)

Legend

1 "1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act

Clean Air Act

none of the ingredients are listed

New Jersey Worker and Community Right to Know Act

Right to Know Hazardous Substance List			
Name acc. to inventory	CAS No	Remarks	Classifications
sodium nitrite	7632-00-0		
sodium	7440-23-5		F3 R2

Legend

 F3 Flammable - Third Degree
 R2 Reactive - Second Degree

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

none of the ingredients are listed

Industry or sector specific available guidance(s)
NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	/	none
Health	2	temporary or minor injury may occur
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	2	materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	1	material that, under emergency conditions, can cause significant irritation
Instability	0	material that is normally stable, even under fire conditions
Special hazard	OX	oxidizer that causes a severe increase in the burning rate of combustible materials with which it comes into contact

National inventories

Country	Inventory	Status
US	TSCA	all ingredients are listed

Legend

TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. While we believe the contained data is factual and those of qualified experts, the data should not be taken as a warranty or representation for which the company assumes legal responsibility. Any use of the data and information must be determined by the user to be in accordance with applicable federal, state, and local laws and regulations. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This product is intended for industrial use only.