

Safety data sheet

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

1.1. Product identifier

Product name **NV FERRO PROTETTIVO**

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

Intended use **Transparent, water based coating for the protection of metal surfaces.**

1.3. Details of the supplier of the safety data sheet

Name	Oikos Srl
Full address	via Cherubini, 2
District and Country	47043 Gatteo a Mare (FC) Italia
Tel.	0039-0547-681412
Fax	0039-0547-681430

e-mail address of the competent person responsible for the Safety Data Sheet **labres@oikos-paint.com**

1.4. Emergency telephone number

For urgent inquiries refer to **Laboratorio R&S Oikos s.r.l. 0039-0547-681412 (from 9.00 to 18.00)**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to EC Regulation 1907/2006 and subsequent amendments.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication: --

2.2. Label elements.

The classification is cautionary, some of the substances are declared below specific concentration limits requiring the EUH208 statement.

Hazard pictograms: --

Signal words: --

Hazard statements:

EUH208

Contains:

Mixture of 5-chloro-2-methyl-4-iso-thiazolin-3-one [EC no 247-50-7] and 2-methyl-2H-isothiazol-3-one [EC no 20-239-6] (3:1)

1,2-Benzisothiazol-3(2H)-one

2-Methylisothiazol-3(2H)-one

Tetrahydro-1,3,4,6-tetrakis(hydroxymethyl)imidazo[4,5-d]imidazole-2,5(1H,3H)-dione

May produce an allergic reaction.

Precautionary statements: --

Safety data sheet available for professional users on request.

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
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DIPROPYLENE GLYCOL MONOMETHYL ETHER

CAS. 34590-94-8 1,5 - 2

EC. 252-104-2

INDEX. -

Reg. no. 01-2119450011-60

Substance with a community workplace exposure limit.

1,2-Benzisothiazol-3(2H)-one

CAS. 2634-33-5 0,005 - 0,05 Xn R22, Xi R38, Xi R41, Xi R43, N R50

EC. 220-120-9

INDEX. 613-088-00-6

Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315,
 Skin Sens. 1B H317, Aquatic Acute 1 H400 M=1,
 Aquatic Chronic 2 H411, EUH208

Mixture of 5-chloro-2-methyl-4-iso-thiazolin-3-one [EC no 247-50-7] and 2-methyl-2H-isothiazol-3-one [EC no 20-239-6] (3:1)

CAS. 55965-84-9 0 - 0,0015 T R23/24/25, C R34, Xi R43, N R50/53

EC. 611-341-5

INDEX. 613-167-00-5

Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331,
 Skin Corr. 1A H314, Skin Sens. 1 H317,
 Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410, EUH208

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully.

Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures. ... / >>

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:
United Kingdom

Éire
OEL EU

TLV-ACGIH

EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended).
Code of Practice Chemical Agent Regulations 2011.
Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
ACGIH 2012

SECTION 8. Exposure controls/personal protection. ... / >>

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m ³	ppm	mg/m ³	ppm	
OEL	EU	308	50			SKIN
OEL	IRL	308	50			SKIN
WEL	UK	308	50			SKIN
TLV-ACGIH		606	100	909	150	SKIN

Predicted no-effect concentration - PNEC.

Normal value for the terrestrial compartment	4,59	mg/kg
Normal value in fresh water	19	mg/l
Normal value for water, intermittent release	190	mg/l
Normal value in marine water	1,9	mg/l
Normal value for fresh water sediment	52,3	mg/kg
Normal value for marine water sediment	5,2	mg/kg
Normal value of STP microorganisms	4168	mg/l

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers.			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	1,67				
Inhalation.			VND	37,2			VND	310
Skin.			VND	15			VND	65
				mg/kg				mg/kg

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
 VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	liquid
Colour	milky
Odour	characteristic
Odour threshold.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

pH.	8-9
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	100 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,000 Kg/l
Solubility	soluble in water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	1000 cps
Explosive properties	Not available.
Oxidising properties	Not available.
9.2. Other information.	
VOC (Direttiva 2004/42/CE)	55 g/liter

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

DIPROPYLENE GLYCOL MONOMETHYL ETHER: may react with oxidising agents. When heated to decomposition it releases harsh and irritating fumes and vapours.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

DIPROPYLENE GLYCOL MONOMETHYL ETHER

LD50 (Oral).	> 5000 mg/kg
LD50 (Dermal).	9510 mg/kg
LC50 (Inhalation).	3,35 mg/l/7h

Mixture of 5-chloro-2-methyl-4-iso-thiazolin-3-one [EC no 247-50-7] and 2-methyl-2H-isothiazol-3-one [EC no 20-239-6] (3:1)

LD50 (Oral).	550 mg/kg ratto
LC50 (Inhalation).	0,31 mg/l/4h ratto

SECTION 11. Toxicological information. ... / >>

1,2-Benzisothiazol-3(2H)-one
LD50 (Oral). < 5000 mg/kg

SECTION 12. Ecological information.**12.1. Toxicity.**

Mixture of 5-chloro-2-methyl-4-iso-thiazolin-3-one [EC no 247-50-7] and 2-methyl-2H-isothiazol-3-one [EC no 20-239-6] (3:1)
LC50 - for Fish. 0,58 mg/l/96h
EC50 - for Crustacea. 1,02 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0,379 mg/l/72h
EC10 for Algae / Aquatic Plants. 0,188 mg/l/72h

1,2-Benzisothiazol-3(2H)-one
LC50 - for Fish. 60 mg/l/96h

12.2. Persistence and degradability.

Mixture of 5-chloro-2-methyl-4-iso-thiazolin-3-one [EC no 247-50-7] and 2-methyl-2H-isothiazol-3-one [EC no 20-239-6] (3:1)
NOT rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.**13.1. Waste treatment methods.**

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Avoid littering. Do not contaminate soil, sewers and waterways.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

SECTION 15. Regulatory information.**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.**

Seveso category. None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.
None.

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisation (Annex XIV REACH).

None.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Information not available.

VOC (Directive 2004/42/EC) :

Interior/exterior trim and cladding paints for wood, metal or plastic.

VOC given in g/litre of product in a ready-to-use condition :

Limit value:

130,00 (2010)

VOC of product :

55,00

SECTION 16. Other information.

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains <name of sensitising substance>. May produce an allergic reaction.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H314	Causes severe skin burns and eye damage.
H410	Very toxic to aquatic life with long lasting effects.

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

R22	HARMFUL IF SWALLOWED.
R23/24/25	TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
R34	CAUSES BURNS.
R38	IRRITATING TO SKIN.
R41	RISK OF SERIOUS DAMAGE TO EYES.
R43	MAY CAUSE SENSITISATION BY SKIN CONTACT.
R50	VERY TOXIC TO AQUATIC ORGANISMS.
R50/53	VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration

SECTION 16. Other information. ... / >>

- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
9. The Merck Index. - 10th Edition
10. Handling Chemical Safety
11. Niosh - Registry of Toxic Effects of Chemical Substances
12. INRS - Fiche Toxicologique (toxicological sheet)
13. Patty - Industrial Hygiene and Toxicology
14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
15. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:

02 / 12 / 15.