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

1.1 Product identifier

Trade name : G072-B10 hebro®protect 2

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

Use of the Sub-
stance/Mixture : Corrosion inhibitor

1.3 Details of the supplier of the safety data sheet

Company : hebro chemie- ZN der Rockwood Specialties Group
GmbH
Rostocker Str. 40
41199 Mönchengladbach

Contact person : Zentrale hebro chemie
Telephone : +49 (0) 2166 6009-0
Telefax : +49 (0) 2166 6009-99

Contact person product safety : Abteilung Produktsicherheit
Telephone : +49(0)2166 6009-311
E-mail address : msds.de@hebro-chemie.de

1.4 Emergency telephone number

: Giftinformationszentrum Erfurt:
+49 (0) 361 730 730

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.




2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms	:	  
Signal word	:	Danger
Hazard statements	:	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H336 May cause drowsiness or dizziness. H412 Harmful to aquatic life with long lasting effects.
Supplemental Hazard Statements	:	EUH066 Repeated exposure may cause skin dryness or cracking.
Precautionary statements	:	Prevention: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing mist or vapours. Response: P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P310 Immediately call a POISON CENTER/ doctor.

Hazardous components which must be listed on the label:
 Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
 The information required is contained in this Material Safety Data Sheet.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Preparation based on oils and corrosion inhibitors

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (% w/w)
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Not Assigned 919-857-5 01-2119463258-33	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H336 Note N	>= 80 - <= 100
2-ethylhexanoic acid, compound with dodecylamine (1:1)	85068-69-5	Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 2.5 - < 3

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		Aquatic Chronic 2; H411	
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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : When symptoms persist or in all cases of doubt seek medical advice.
- If inhaled : Provide fresh air.
Keep patient warm and at rest.
If symptoms persist, call a physician.
- In case of skin contact : Take off all contaminated clothing immediately.
After contact with skin, wash immediately with plenty of soap and water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.
- If swallowed : Call a physician immediately.
Keep at rest.
Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Erythema

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.
For specialist advice physicians should contact the Poisons Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry powder
Water spray jet
- Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Hazardous decomposition products formed under fire conditions.
Carbon monoxide
Nitrogen oxides (NO_x)

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5.3 Advice for firefighters

- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
- Further information : Use water spray to cool unopened containers.
Suppress (knock down) gases/vapours/mists with a water spray jet.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Ensure adequate ventilation.
Do not breathe vapours, aerosols.
Remove all sources of ignition.

6.2 Environmental precautions

- Environmental precautions : Do not empty into drains.
Inform the relevant authorities if it enters sewers, aquatic environment or soil.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See chapter
8
and
13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Keep away from open flames, hot surfaces and sources of ignition.
Take precautionary measures against static discharges.
Avoid contact with skin and eyes.
Do not breathe vapours or spray mist.
When using do not eat, drink or smoke.
For personal protection see section 8.
- Advice on protection against fire and explosion : Vapours are heavier than air and may spread along floors.
Vapours may form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage : Follow the water regulations. Keep only in the original con-

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- areas and containers : tainer in a cool, well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Further information on storage conditions : Keep only in the original container in a cool, well-ventilated place. Keep away from heat. Keep away from sources of ignition - No smoking. Keep at temperatures between - 7°C and 40°C.
- Advice on common storage : Incompatible with oxidizing agents.

7.3 Specific end use(s)

- Specific use(s) : Corrosion inhibitor

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Workers	Inhalation	Long-term systemic effects	871 mg/m ³
	Workers	Skin contact	Long-term systemic effects	208 mg/kg bw/day

8.2 Exposure controls

Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166

Hand protection

Material : Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

Remarks : The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The exact break through time can be obtained from the protective glove producer and this has to be observed.

Skin and body protection : Protective suit

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Recommended Filter type:
ABEK-filter
The filter class for the respirator must be suitable for the maximum expected contaminant concentration

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(gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Protective measures : Follow the skin protection plan.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: brown
Odour	: characteristic
Odour Threshold	: No data available
pH	: Not applicable
Melting point/freezing point	: No data available
Boiling point/boiling range	: No data available
Flash point	: > 36 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: Upper flammability limit 7 %(V)
Lower explosion limit	: Lower flammability limit 0.6 %(V)
Vapour pressure	: 3 000026 (20 °C)
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.79 g/cm ³ (20 °C) Method: ASTM D 7042
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: not determined
Decomposition temperature	: No data available

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Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: 2.7 mm ² /s (20 °C)
Flow time	: No data available
Explosive properties	: Vapours may form explosive mixture with air.
Oxidizing properties	: No data available

9.2 Other information

Other physico-chemical properties: This information is not available/not determined.

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : Product is stable under appropriate usage.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Based on available data, the classification criteria are not met.

Acute toxicity

Components:

Hydrocarbons, C₉-C₁₁, n-alkanes, isoalkanes, cyclics, < 2% aromatics:

Acute oral toxicity : LD₅₀ (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

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Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Remarks: Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.

Serious eye damage/eye irritation

Product:

Remarks: The liquid splashed in the eyes may cause irritation and reversible damage.

Respiratory or skin sensitisation

Product:

Remarks: This information is not available.

Germ cell mutagenicity

Product:

Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Reproductive toxicity

Product:

Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Based on available data, the classification criteria are not met.

STOT - repeated exposure

Product:

Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: According to many years of experience, there are no known harmful effects when

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handled properly.

Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several components.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology studies for the product are not available.

Components:

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l
Exposure time: 96 h
Test Type: Limit Test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h
Test Type: Limit Test
Method: OECD Test Guideline 202

Toxicity to algae : IC50 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l
Exposure time: 72 h

NOEC (Pseudokirchneriella subcapitata (green algae)): 100 mg/l
Exposure time: 72 h

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics:

Partition coefficient: n-octanol/water : log Pow: 5 - 6.7

12.4 Mobility in soil

Product:

Mobility : Remarks: No data available

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12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

Additional ecological information : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.
Do not let product enter drains.
Do not dispose of with domestic refuse.

Contaminated packaging : Dispose of in accordance with local regulations.

Waste Code : 07 06 04 : other organic solvents, washing liquids and mother liquors

SECTION 14: Transport information

14.1 UN number

ADR : UN 3295
RID : UN 3295
IMDG : UN 3295
IATA : UN 3295

14.2 UN proper shipping name

ADR : HYDROCARBONS, LIQUID, N.O.S.
RID : HYDROCARBONS, LIQUID, N.O.S.
IMDG : HYDROCARBONS, LIQUID, N.O.S.
(Hydrocarbons, C9-C11, cyclics, < 2% aromatics)
IATA : Hydrocarbons, liquid, n.o.s.

14.3 Transport hazard class(es)

ADR : 3
RID : 3
IMDG : 3
IATA : 3

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14.4 Packing group

ADR

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3
Tunnel restriction code : (D/E)

RID

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

IMDG

Packing group : III
Labels : 3
EmS Code : F-E, S-D
Remarks : "IMDG-Code segregation group not applicable".

IATA (Cargo)

Packing instruction (cargo aircraft) : 366
Packing instruction (LQ) : Y344
Packing group : III
Labels : Flammable Liquids

IATA (Passenger)

Packing instruction (passenger aircraft) : 355
Packing instruction (LQ) : Y344
Packing group : III
Labels : Flammable Liquids

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Refer to protective measures listed in sections 7 and 8.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

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- Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable
- Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable
- Volatile organic compounds : Directive 1999/13/EC on the limitation of emissions of volatile organic compounds
Volatile organic compounds (VOC) content: 665.9 g/l
- Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.
Regional or national implementations of GHS may not implement all hazard classes and categories.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of H-Statements

- H226 : Flammable liquid and vapour.
H304 : May be fatal if swallowed and enters airways.
H315 : Causes skin irritation.
H319 : Causes serious eye irritation.
H336 : May cause drowsiness or dizziness.
H411 : Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

- Aquatic Chronic : Long-term (chronic) aquatic hazard
Asp. Tox. : Aspiration hazard
Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
Skin Irrit. : Skin irritation
STOT SE : Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No

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Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information : The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product. This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

GB / EN