Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2015/830

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

1.1. **Product identifier**

Article No. (manufacturer/supplier):	RSM002
Trade name/designation	grotamar 82

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

Relevant identified uses
Preservative
Industrial use

1.3. **Details of the supplier of the safety data sheet**

supplier (manufacturer/importer/downstream user/distributor)
Vink Chemicals GmbH & Co. KG
Eichenhöhe 29 Telephone: +49 (0) 4186 - 88797 0
D-21255 Kakenstorf Telefax: +49 (0) 4186 - 88797 10

Department responsible for information:
Mr. Branko Ulaga
E-mail (competent person) sds@vink-chemicals.com

1.4. **Emergency telephone number**
Emergency telephone number
National Poisons Information Service 0844 892 0111

SECTION 2: Hazards identification

2.1. **Classification of the substance or mixture** *

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

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Skin Corr. 1B / H314	Skin corrosion/irritation	Causes severe skin burns and eye damage.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Muta. 2 / H341	Germ cell mutagenicity	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Carc. 1B / H350	Carcinogenicity	May cause cancer.
STOT RE 2 / H373	STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.

2.2. **Label elements** *

The product is classified and labelled according to EC directives or corresponding national laws.

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

Hazard pictograms

Danger

Hazard statements

H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements

P260	Do not breathe vapour.
P280	Wear protective gloves and eye/face protection.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304 + P340	IF INHALED: Remove person to fresh air and keep 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.

Hazard components for labelling

Benzene, C10-13-alkyl derivs.
N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine
reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]

Supplemental hazard information

not applicable

2.3. **Other hazards**

No information available.

SECTION 3: Composition / information on ingredients

3.2. **Mixtures**

Description Biocide

Hazardous ingredients

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

EC No. CAS No. INDEX No.	REACH No. Designation classification: // Remark	Wt %
267-051-0 67774-74-7	Benzene, C10-13-alkyl derivs. Asp. Tox. 1 H304	50 - 100
401-280-0 91273-04-0 613-072-00-9	N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine Skin Corr. 1B H314 / Eye Dam. 1 H318 / Skin Sens. 1 H317 / Asp. Tox. 1 H304 / Aquatic Chronic 1 H410	0,5 - 1
204-884-0 128-39-2	2,6-Di-tert-butylphenol Skin Irrit. 2 H315 / Aquatic Acute 1 H400 / Aquatic Chronic 1 H410	0,5 - 1
612-290-00-1	reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO] Acute Tox. 4 H302 / Acute Tox. 3 H311 / Acute Tox. 4 H332 / Skin Corr. 1B H314 / Eye Dam. 1 H318 / Skin Sens. 1A H317 / Muta. 2 H341 / Carc. 1B H350 / STOT RE 2 H373 / Aquatic Chronic 2 H411	12,5 - 20

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. **Description of first aid measures**

General information

In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners. Consult a physician.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.Immediately call a doctor.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Rinse mouth immediately and drink plenty of water. Do

NOT induce vomiting.Seek medical advice immediately.

4.2. **Most important symptoms and effects, both acute and delayed**
In all cases of doubt, or when symptoms persist, seek medical advice.

4.3. **Indication of any immediate medical attention and special treatment needed**
First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media
alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media
strong water jet

5.2. **Special hazards arising from the substance or mixture**
Do not breathe gas/fumes/vapour/spray.

5.3. **Advice for firefighters**
Provide a conveniently located respiratory protective device.

Additional information
Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures**
Ventilate affected area. Do not breathe vapours.

6.2. **Environmental precautions**
Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. **Methods and material for containment and cleaning up**
Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

6.4. **Reference to other sections**
Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. **Precautions for safe handling**

Advices on safe handling

Use only with sufficient ventilation.Refer to chapter 8. : Exposure controls / Personal protection

Further information
Respiratory protection necessary at: aerosol or mist formation

7.2. **Conditions for safe storage, including any incompatibilities**

Technical measures and storage conditions
Keep/Store only in original container.

Requirements for storage rooms and vessels
Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO).

Further information on storage conditions
Take care of instructions on label. Protect from heat and direct sunlight. Protect from frost.

7.3. **Specific end use(s)**
No measures required.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**
Occupational exposure limit values

not applicable

8.2. **Exposure controls**

Personal protection equipment

Respiratory protection
Respiratory protection necessary at: exceeding exposure limit values. Use only respiratory protection equipment with CE-symbol including four digit test number. Combination filtering device (EN 14387) Filter type: ABEK

Hand protection
Wear protective gloves. Suitable material: Nitrile, Butyl caoutchouc (butyl rubber). Recommended glove articles EN ISO 374

Eye/face protection
Wear eye glasses with side protection according to EN 166.

Body protection
Suitable protective clothing: Protective clothing. type 6 DIN EN 13034

Protective measures
Avoid contact with eyes and skin.

Environmental exposure controls
Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. **Information on basic physical and chemical properties**

Appearance:	
Physical state:	**Liquid**
Appearance:	**Liquid**
Colour:	**colourless**
Odour:	**characteristic**
Odour threshold:	**not applicable**
pH at 20 °C:	**not applicable**
Initial boiling point and boiling range:	**> 160 °C**
Flash point:	**> 100 °C**
Evaporation rate:	**not applicable**
flammability	
Burning time (s):	**not applicable**
Upper/lower flammability or explosive limits:	
Lower explosion limit:	**0,8 Vol-%**
Upper explosion limit:	**10,7 Vol-%**
Vapour pressure at 20 °C:	**0,4 mbar**
Vapour density:	**not applicable**
Relative density:	
Density at 20 °C:	**0,895 g/cm³**
Solubility(ies):	
Water solubility (g/L) at 20 °C:	**200**
Partition coefficient: n-octanol/water:	**see section 12**
Auto-ignition temperature:	**not applicable**
Decomposition temperature:	**not applicable**
Viscosity at 20 °C:	**7 mPa*s**
Explosive properties:	**not applicable**
Oxidising properties:	**not applicable**

9.2. **Other information**

No further relevant information available.

SECTION 10: Stability and reactivity

10.1. **Reactivity**

No information available.

10.2. **Chemical stability**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**
No known hazardous reactions.

10.4. **Conditions to avoid**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**
not applicable

10.6. **Hazardous decomposition products**
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

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

11.1. **Information on toxicological effects**

Acute toxicity

N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine
oral, LD50, Rat: 2238 mg/kg 0 - 2238 mg/kg
Method: OECD 401
dermal, LD50, Rat: 2000 mg/kg
Method: OECD 402

reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]
oral, LD50, Rat: 632 mg/kg
dermal, LD50, Rat: 760 mg/kg
Method: OECD 402
inhalative (dust and mist), LC50, Rat: 2 mg/l (4 h)
Method: OECD 436

Skin corrosion/irritation; Serious eye damage/eye irritation

Corrosive

Causes severe skin burns and eye damage.

Respiratory or skin sensitisation

sensitising

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

May cause cancer.

STOT-single exposure; STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

May be fatal if swallowed and enters airways.

Practical experience/human evidence

Overall Assessment on CMR properties

EC No. CAS No.	Designation	Classification according to Regulation (EC) No 1272/2008 [CLP]
	reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	Carc. 1B

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
Do not allow to enter into surface water or drains.

12.1. **Toxicity**

N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine
Fish toxicity, LC50, Brachydanio rerio (zebra-fish): 1,1 mg/l (96 h)
Method: OECD 203
Algae toxicity, ErC50, Desmodesmus subspicatus: > 1 mg/l (72 h)
Method: OECD 201

reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]
Fish toxicity, LC50, Brachydanio rerio (zebra-fish): 71 mg/l (96 h)
Daphnia toxicity, EC50, Daphnia pulex (water flea): 28 mg/l (48 h)
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 2,95 mg/l (72 h)

2,6-Di-tert-butylphenol
Fish toxicity, LC50, Pimephales promelas (fathead minnow): 1,4 mg/l (96 h)
Daphnia toxicity, EC50, Daphnia magna: 0,45 mg/l (48 h)

Long-term Ecotoxicity

Toxic to aquatic life with long lasting effects.

2,6-Di-tert-butylphenol
Daphnia toxicity, EC50, Daphnia magna: 0,035 mg/l (48 h)

12.2. **Persistence and degradability**

reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]
: 89,8 (28 day(s)); evaluation Readily biodegradable (according to OECD criteria)
Method: OECD 306

12.3. **Bioaccumulative potential**

reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]
Partition coefficient: n-octanol/water: -0,3

Bioconcentration factor (BCF)

Toxicological data are not available.

12.4. **Mobility in soil**
Toxicological data are not available.

12.5. **Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. **Other adverse effects**
No information available.

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

Appropriate disposal / Product
Recommendation
Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way.

List of proposed waste codes/waste designations in accordance with EWC
140603* other solvents and solvent mixtures
*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package
Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. **UN number**

UN 3267

14.2. **UN proper shipping name** *

Land transport (ADR/RID): Corrosive liquid, basic, organic, n.o.s.
(reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio

	3:2); [MBO], N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine)
Sea transport (IMDG):	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO], N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine)
Air transport (ICAO-TI / IATA-DGR):	Corrosive liquid, basic, organic, n.o.s. (reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO], N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine)

14.3. **Transport hazard class(es)**

8

14.4. **Packing group**

II

14.5. **Environmental hazards**

Land transport (ADR/RID)	ENVIRONMENTALLY HAZARDOUS
Marine pollutant	p / N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine

14.6. **Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

tunnel restriction code	E

Sea transport (IMDG)

EmS-No.	F-A, S-B
in packages <= 5 litres	not restricted 2.10.2.7

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

not applicable

SECTION 15: Regulatory information

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

EU legislation
Restrictions of occupation:
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Regulation (EU) No. 528/2012 on biocides

biocidal product	
biocide, active substance	
reaction products of paraformaldehyde and 2-hydroxypropylamine (ratio 3:2); [MBO]	200 g/kg
Input	0.25-2.5 ml/l

Directive 2010/75/EU on industrial emissions
VOC-value (in g/L): 887,4

National regulations

15.2. **Chemical Safety Assessment**
For the following substances of this mixture a chemical safety assessment has been carried out:

EC No. CAS No.	Designation	REACH No.
267-051-0 67774-74-7	Benzene, C10-13-alkyl derivs.	01-2119489372-31
401-280-0 91273-04-0	N,N-bis(2-ethylhexyl)-((1,2,4-triazol-1-yl)methyl)amine	01-2119489372-31
204-884-0 128-39-2	2,6-Di-tert-butylphenol	01-2119490822-33

SECTION 16: Other information

Full text of classification in section 3:

Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Skin Corr. 1B / H314	Skin corrosion/irritation	Causes severe skin burns and eye damage.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 1 / H410	Hazardous to the aquatic environment	Very toxic to aquatic life with long lasting effects.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
Aquatic Acute 1 / H400	Hazardous to the aquatic environment	Very toxic to aquatic organisms.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Acute Tox. 3 / H311	Acute toxicity (dermal)	Toxic in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Sens. 1A / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Muta. 2 / H341	Germ cell mutagenicity	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Carc. 1B / H350	Carcinogenicity	May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
STOT RE 2 / H373	STOT-repeated exposure	May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Skin Corr. 1B	Skin corrosion/irritation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
Muta. 2	Germ cell mutagenicity	Calculation method.
Carc. 1B	Carcinogenicity	Calculation method.
STOT RE 2	STOT-repeated exposure	Calculation method.
Asp. Tox. 1	Aspiration hazard	Calculation method.
Aquatic Chronic 2	Hazardous to the aquatic environment	Calculation method.

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

Further information

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

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations.Without written approval, the product must not be used for purposes different from those mentioned in section 1.It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations.The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

* Data changed compared with the previous version