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

1.1 Product identifier

Commercial Product Name : ADDITIN RC 5820

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

Use of the Substance/Mixture : Additive for lubricants

1.3 Details of the supplier of the safety data sheet

Manufacturer
Rhein Chemie Rheinau GmbH
Duesseldorfer Strasse 23-27
68219 Mannheim
Germany

Telephone +49 (0)621-8907-445
Telefax +49 (0)621-8907-404
E-Mail
product.safety@rheinchemie.com

Supplier
LANXESS Limited,
Branston Industrial Estate, Branston,
Burton-on-Trent, Staffordshire. DE14 3WH
United Kingdom

Telephone +44 (0) 1283 714200

1.4 Emergency telephone number

+49 (0)621-8907-313

+44 (0) 870 190 6777 National Chemical Emergency Centre

2. Hazards identification

2.1 Classification of the substance or mixture

Classification REGULATION (EC) No 1272/2008
Skin corrosion, Category 1B
Chronic aquatic toxicity, Category 3

H314: Causes severe skin burns and eye damage.
H412: Harmful to aquatic life with long lasting effects.

Classification 67/548/EEC, 1999/45/EC

Corrosive
Dangerous for the environment

R34: Causes burns.
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling REGULATION (EC) No 1272/2008

Hazard pictograms

Signal word : Danger
Hazard statements: H314 Causes severe skin burns and eye damage.  
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements: 
Prevention:  
P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:  
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.  
P308 IF exposed or concerned:  
P310 Immediately call a POISON CENTER or doctor/ physician.  
P321 Specific treatment (see supplemental first aid instructions on this label).

3. Composition/information on ingredients

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Classification 67/548/EEC</th>
<th>Classification REGULATION (EC) No 1272/2008</th>
<th>Concentration</th>
<th>M-Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimaleinsäure-triethylenglykoldiester</td>
<td>66790-57-6</td>
<td>C, R52/53, R34</td>
<td>Skin Corr. ; H314 Aquatic Chronic 3; H412</td>
<td>&gt;= 80 - &lt;= 100</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EC-No. CAS-No.</th>
<th>Classification 67/548/EEC</th>
<th>Classification REGULATION (EC) No 1272/2008</th>
<th>Concentration</th>
<th>M-Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3-benzotriazole</td>
<td>202-394-1 95-14-7</td>
<td>Xn, R22</td>
<td>Acute Tox. 4; H302</td>
<td>&gt;= 5 - &lt;= 10</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures
GENERAL ADVICE: Remove from exposure, lie down. Also heed the risks to your own person. Symptoms of poisoning may only appear several hours later. When symptoms persist or in all cases of doubt seek medical advice. Never give anything by mouth to an unconscious person.

INHALATION: After inhalation of vapours during processing, remove the patient to fresh air at once. If breathing is difficult, obtain medical help.

SKIN CONTACT: Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

EYE CONTACT: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

INGESTION: Rinse the mouth with plenty of water. Do NOT induce vomiting. Should the product be swallowed seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No information available.
Risks: No information available.

4.3 Indication of any immediate medical attention and special treatment needed
Treatment: No information available.

5. Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media: Carbon dioxide (CO2), Foam, Dry chemical,
Unsuitable extinguishing media: High volume water jet,

5.2 Special hazards arising from the substance or mixture
Specific hazards: In the event of fire be aware of formation of noxious fumes. Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters
Special protective equipment: Firemen must wear self-contained breathing apparatus.
Further information: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
SAFETY DATA SHEET
ADDITIN RC 5820
according to Regulation (EC) No. 1907/2006

Division Lubricant Oil Additives

Personal precautions

: Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions

: Prevent entry into drains, waters or soil.
Prevent further leakage or spillage if safe to do so.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Fill into labelled, sealable containers.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

: Provide adequate ventilation and, if necessary, exhaust ventilation during handling or transferring of the product. Avoid contact with skin and eyes.
Dispose of rinse water in accordance with local and national regulations.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Advice on common storage

: Keep away from foodstuffs, drinks and tobacco.

Other data

: No decomposition if stored and applied as directed.

8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Respiratory protection

: Not required; except in case of aerosol formation.
Avoid inhaling vapours.

Hand protection

: Chemical-resistant protective gloves according to DIN/EN 374 are recommended.
Only suitable for brief exposure.
In the event of contamination, change protective gloves immediately.
Avoid skin contact with the wetted surfaces of the protective gloves.

Eye protection

: Safety glasses with side-shields conforming to EN166
Body Protection : Wear protective clothing.

Hygiene measures : Take off all contaminated clothing immediately.
When using do not eat or drink.
Wash hands before breaks and immediately after handling the product.
Keep working clothes separately.

Protective measures : When handling observe the usual precautionary measures for chemicals.

Environmental exposure controls
General advice : Prevent entry into drains, waters or soil.
Prevent further leakage or spillage if safe to do so.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Form : liquid
Colour : amber
Odour : characteristic
Odour Threshold : not determined

Safety data
Flash point : 174 °C
Method: ISO 2592
Ignition temperature : not determined
Thermal decomposition : no data available
Lower explosion limit : not determined
Upper explosion limit : not determined
Flammability (solid, gas) : not auto-flammable
Oxidizing properties : not oxidizing
Autoignition temperature : not auto-flammable
pH : ca.2,1 1 wt.pct. aqueous solution
Melting point/range : not determined
Boiling point/boiling range : not determined
Vapour pressure : not determined
Density : 1.24 g/cm³ (20 °C)
Method: DIN 51757
Water solubility : completely soluble
Partition coefficient: n-octanol/water : not determined
Solubility in other solvents : no data available
Viscosity, kinematic : not determined
Explosive properties : Not explosive
Relative vapour density : no data available
Evaporation rate : no data available

10. Stability and reactivity

10.1 Reactivity
Reactivity : No hazards to be specially mentioned.

10.2 Chemical stability
Chemical stability : Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous reactions : No decomposition if used as directed.
: Vapours may form explosive mixture with air.

10.4 Conditions to avoid
Conditions to avoid : Extremes of temperature and direct sunlight.

10.5 Incompatible materials
Materials to avoid : Keep away from reducing agents, oxidising agents, acids and bases.,

10.6 Hazardous decomposition products
Hazardous decomposition products : Does not occur until flash point reached.,
Formation of carbon monoxide, carbon dioxide and other toxic gases in the event of fire, or during thermal decomposition.,
: No hazardous decomposition products when stored and
11. Toxicological information

11.1 Information on toxicological effects

- Acute oral toxicity: no data available
- Acute inhalation toxicity: no data available
- Acute dermal toxicity: no data available
- Skin irritation: no data available
- Eye irritation: no data available
- Sensitisation: no data available
- Repeated dose toxicity: no data available
- Genotoxicity in vitro: no data available
- Genotoxicity in vivo: no data available
- Carcinogenicity: no data available
- Reproductive toxicity: no data available
- STOT - single exposure: no data available
- STOT - repeated exposure: no data available
- Aspiration toxicity: no data available

Toxicological studies on the preparation are not available.

12. Ecological information

12.1 Toxicity
12.2 Persistence and degradability
Biodegradability : no data available

12.3 Bioaccumulative potential
Bioaccumulation : no data available

12.4 Mobility in soil
Distribution among environmental compartments : Remarks:
no data available

12.6 Other adverse effects
Adsorbed organic bound halogens (AOX)
1,2,3-benzotriazole : The product does not contain any organically bonded halogens which can lead to AOX values in effluent water.

Additional ecological information : Ecotoxicological studies at the preparation are not available. Do not allow to escape into waterways, waste water or soil.

13. Disposal considerations
13.1 Waste treatment methods
Product : The relevant EC Directives as well as local, regional and national regulations have to be observed. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste Catalogue. It is recommended that details be sorted out with the waste disposer responsible.

Method of disposal : The waste can be disposed of in a suitable incinerator, provided that national/local legislation is complied with.

Contaminated packaging : Containers must be recycled in compliance with national legislation and environmental regulations. After containers have been emptied as thoroughly as possible (e.g. by pouring,
scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry.

14. Transport information

14.1 UN number

ADR/ADN : 3265
RID : 3265
IMDG : 3265
IATA-P : 3265
IATA-C : 3265

14.2 Proper shipping name

ADR/ADN : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (MIXTURE, CONTAINS, DIMALEINSÄURE-TRIETHYLENGLYKOLDIESTER)
RID : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (MIXTURE, CONTAINS, DIMALEINSÄURE-TRIETHYLENGLYKOLDIESTER)
IMDG : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (MIXTURE, CONTAINS, DIMALEINSÄURE-TRIETHYLENGLYKOLDIESTER)
IATA-P : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (MIXTURE, CONTAINS, DIMALEINSÄURE-TRIETHYLENGLYKOLDIESTER)
IATA-C : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (MIXTURE, CONTAINS, DIMALEINSÄURE-TRIETHYLENGLYKOLDIESTER)

14.3 Transport hazard class

ADR/ADN : 8
RID : 8
IMDG : 8
IATA-P : 8
IATA-C : 8

14.4 Packing group

ADR/ADN
Packaging group : II
Hazard identification No : 80
Labels : 8
Tunnel restriction code : (E)

RID
Packaging group : II
Hazard identification No : 80
Labels : 8

IMDG
Packaging group : II
Labels : 8
EmS Number : F-A, S-B

IATA-P
Packaging group : II
14.5 Environmental hazards

ADR/ADN
Environmentally hazardous : no

RID
Environmentally hazardous : no

IMDG
Marine pollutant : no

IATA-P
Environmentally hazardous : no

IATA-C
Environmentally hazardous : no

14.6 Special precautions for user

Corrosive.
Keep away from foodstuffs, acids and alkalis.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15. Regulatory information

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

Water contaminating class (Germany)
WGK 2: water endangering (VWVWS A4)

15.2 Chemical Safety Assessment

Chemical Safety Assessment not yet performed.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R22 Harmful if swallowed.
R34 Causes burns.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Full text of H-Statements referred to under sections 2 and 3.

H302   Harmful if swallowed.
H314   Causes severe skin burns and eye damage.
H412   Harmful to aquatic life with long lasting effects.

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. 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.