eloma Multi-Clean spezial

1.1. Product identifier
eloma Multi-Clean spezial

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture
Clearing agent, alkaline.

Uses advised against
not known

1.3. Details of the supplier of the safety data sheet
Company name: Eloma GmbH
Street: Otto-Hahn-Strasse 10
Place: D-82216 Maisach
Telephone: +49 (0) 8141 3950
Responsible Department: info@eloma.com

1.4. Emergency telephone number: ---

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Indications of danger: C - Corrosive
R phrases:
Causes severe burns.

GHS classification
Hazard categories:
Substance or mixture corrosive to metals: Met. Corr. 1
Skin corrosion/irritation: Skin Corr. 1A
Serious eye damage/eye irritation: Eye Dam. 1
Hazard Statements:
May be corrosive to metals.
Causes severe skin burns and eye damage.

2.2. Label elements

Hazardous components which must be listed on the label
Sodium hydroxide; caustic soda
Ethoxylated alcohols C9-C11

Signal word: Danger
Pictograms: GHS05

Hazard statements
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statements
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/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/shower.
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/doctor.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>EC No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>215-185-5</td>
<td>Sodium hydroxide; caustic soda</td>
<td>&gt;=5 %</td>
</tr>
<tr>
<td>1310-73-2</td>
<td>C - Corrosive R35</td>
<td></td>
</tr>
<tr>
<td>011-002-00-6</td>
<td>Met. Corr. 1, Skin Corr. 1A; H290 H314</td>
<td></td>
</tr>
<tr>
<td>01-2119457892-27</td>
<td>Ethoxylated alcohols C9-C11</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>3302-10-1</td>
<td>Xn - Harmful, Xi - Irritant R22-36</td>
<td></td>
</tr>
<tr>
<td>68439-46-3</td>
<td>Xn - Harmful, Xi - Irritant R22-41</td>
<td></td>
</tr>
</tbody>
</table>

Full text of R and H phrases: see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).
First aid assistant: Pay attention to self-protection!
Take off immediately all contaminated clothing.

After inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of breathing difficulties administer oxygen. In case of irritation of the respiratory tract seek medical advice.

After contact with skin
Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water. Immediately call a POISON CENTER or doctor/physician.

After contact with eyes
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

After ingestion
Rinse mouth. Do NOT induce vomiting. No mouth-to-mouth or mouth-to-nose resuscitation. Use respiratory bag or oxygen resuscitation apparatus. Immediately call a POISON CENTER or doctor/physician.
4.2. Most important symptoms and effects, both acute and delayed
refer to chapter 2 and 11.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2). Water spray. Foam. Extinguishing powder.

Unsuitable extinguishing media
High power water jet.

5.2. Special hazards arising from the substance or mixture
Can be released in case of fire: Carbon dioxide (CO2). Carbon monoxide. Gas/vapours, corrosive.

5.3. Advice for firefighters
Wear a self-contained breathing apparatus and chemical resistant suit. In case of fire and/or explosion do not breathe fumes.

Additional information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray/stream to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Guide people to safety.
Do not breathe vapour or spray. Avoid contact with skin, eye and clothing.
Wear personal protection equipment. (refer to chapter 8)

6.2. Environmental precautions
Do not empty into drains or the aquatic environment. Prevent spreading over great surfaces (e.g. by damming or installing oil booms). Eliminate leaks immediately. In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3. Methods and material for containment and cleaning up
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Collect in closed containers for disposal.
Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections
See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Wear personal protection equipment. (refer to chapter 8)
Absorb spillage to prevent material damage.

Advice on protection against fire and explosion
No special fire protection measures are necessary.

Further information on handling
Do not breathe vapour or spray. Avoid contact with skin, eye and clothing.
Conditions to avoid: Generation/formation of aerosols
General protection and hygiene measures: refer to chapter 8

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep/Store only in original container. Keep container tightly closed in a cool, well-ventilated place.
Keep locked up.
Unsuitable materials for Container: metal. (Aluminium.)

Advice on storage compatibility

Further information on storage conditions
Protect against: moisture. UV-radiation/sunlight. heat. frost.

7.3. Specific end use(s)
refer to chapter 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Substance</th>
<th>ppm</th>
<th>mg/m³</th>
<th>fibres/ml</th>
<th>Category</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>TWA (8 h)</td>
<td>WEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STEL (15 min)</td>
<td>WEL</td>
</tr>
</tbody>
</table>

Additional advice on limit values
To date, no national limit values exist.

DNEL/DMEL and PNEC values
Sodium hydroxide; caustic soda (CAS-No.: 1310-73-2)
Worker, industry.
Inhalation short term (acute). DNEL = 3,1 mg./m³

8.2. Exposure controls

Appropriate engineering controls
Provide adequate ventilation.

Protective and hygiene measures
Always close containers tightly after the removal of product. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and at the end of work. Do not eat, drink, smoke or sneeze at the workplace. Take off contaminated clothing and wash before reuse.

Eye/face protection
Tightly sealed safety glasses. (DIN EN 166)

Hand protection
Pull-over gloves of rubber. (DIN EN 374)
Suitable material: NBR (Nitrile rubber). (0,4 mm, Breakthrough time >=480 min)
In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.
Breakthrough times and swelling characteristics of the material must be taken into consideration. Before using check leak tightness / impermeability. In case of reutilization, clean gloves before taking off and store in wellaired place.
Skin protection
Protective clothing. (Leachate-proof.)

Respiratory protection
With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection required in case of:
Generation/formation of aerosols
Suitable respiratory protective equipment: Combination filter device (DIN EN 141). Type AP-2/3
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

Environmental exposure controls
Do not allow uncontrolled leakage of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state: | liquid |
| Colour: | red |
| Odour: | characteristic |

Test method
pH-Value: 14

Changes in the physical state
Melting point: not determined
Initial boiling point and boiling range: >90 °C
Flash point: not determined

Explosive properties
none/none
Lower explosion limits: not determined
Upper explosion limits: not determined

Oxidizing properties
none/none
Vapour pressure: not determined
Density (at 20 °C): 1.1 g/cm³
Water solubility: miscible.
Solvent content: not determined

9.2. Other information
No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
Corrosive to metals.

10.2. Chemical stability
Stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions
Violent reaction with: Acid.
10.4. Conditions to avoid
No information available.

10.5. Incompatible materials

10.6. Hazardous decomposition products
hydrogen.
Can be released in case of fire: Carbon dioxide (CO2). Carbon monoxide. Gas/vapours, corrosive.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Acute toxicity

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Exposure routes</th>
<th>Method</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>3302-10-1</td>
<td>3,5,5-trimethylhexanoic acid</td>
<td>oral</td>
<td>LD50</td>
<td>1160 mg/kg</td>
<td>Rat.</td>
<td>ECHA Dossier</td>
</tr>
<tr>
<td>68439-46-3</td>
<td>Ethoxylated alcohols C9-C11</td>
<td>oral</td>
<td>ATE</td>
<td>500 mg/kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Irritation and corrosivity
Causes severe skin burns and eye damage.

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

STOT-single exposure
Based on available data, the classification criteria are not met.

Severe effects after repeated or prolonged exposure
Based on available data, the classification criteria are not met.
3,5,5-trimethylhexanoic acid:
Subchronic oral toxicity (90d, Rat.) NOAEL = 5 mg/kg(bw)/day; literature information: ECHA Dossier
Subacute oral toxicity (Rat.) NOAEL = 50 mg/kg(bw)/day; literature information: ECHA Dossier

Carcinogenic/mutagenic/toxic effects for reproduction
Based on available data, the classification criteria are not met.
3,5,5-trimethylhexanoic acid:
In-vitro mutagenicity: OECD Guideline 471 (Bacterial Reverse Mutation Assay) = negative.; literature information: ECHA Dossier
OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) = negative.; literature information: ECHA Dossier
Developmental toxicity/teratogenicity (Rat.) NOAEL = 60 mg/kg(bw)/day; literature information: ECHA Dossier

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

Specific effects in experiment on an animal
There are no data available on the preparation/mixture itself.

SECTION 12: Ecological information

12.1. Toxicity
### Aquatic toxicity

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Method</th>
<th>Dose</th>
<th>[h]</th>
<th>[d]</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide; caustic soda</td>
<td>LC50</td>
<td>99 mg/l</td>
<td>96</td>
<td>h</td>
<td>Lepomis macrochirus</td>
<td>ECHA Dossier</td>
</tr>
<tr>
<td></td>
<td>Acute fish toxicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>40 mg/l</td>
<td>48</td>
<td>h</td>
<td>daphnia magna</td>
<td>ECHA Dossier</td>
</tr>
<tr>
<td>3302-10-1</td>
<td>3,5,5-trimethylhexanoic acid</td>
<td>LC50</td>
<td>122 mg/l</td>
<td>96</td>
<td>h</td>
<td>Oncorhynchus mykiss</td>
<td>ECHA Dossier</td>
</tr>
<tr>
<td></td>
<td>Acute fish toxicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute crustacea toxicity</td>
<td>EC50</td>
<td>68 mg/l</td>
<td>48</td>
<td>h</td>
<td>Daphnia magna</td>
<td>ECHA Dossier</td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Method</th>
<th>Value</th>
<th>d</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>3302-10-1</td>
<td>3,5,5-trimethylhexanoic acid</td>
<td>OECD Guideline 301 A</td>
<td>96%</td>
<td>21</td>
<td>ECHA Dossier</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product is biodegradable.

### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Chemical name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide; caustic soda</td>
<td>-3.88</td>
</tr>
<tr>
<td>3302-10-1</td>
<td>3,5,5-trimethylhexanoic acid</td>
<td>3.2</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

### 12.6. Other adverse effects

No data available

### Further information

Do not empty into drains or the aquatic environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**Advice on disposal**

Waste disposal according to official state regulations. Consult the local waste disposal expert about waste disposal. Cleaned containers may be recycled.

**Waste disposal number of waste from residues/unused products**

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>060204</td>
<td>WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of bases; sodium and potassium hydroxide Classified as hazardous waste.</td>
</tr>
</tbody>
</table>

**Waste disposal number of used product**

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>060204</td>
<td>WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of bases; sodium and potassium hydroxide Classified as hazardous waste.</td>
</tr>
</tbody>
</table>

**Waste disposal number of contaminated packaging**

Revision No: 1.00

GB - EN

Revision date: 18.12.2014
Contaminated packaging
Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1824
14.2. UN proper shipping name: SODIUM HYDROXIDE, SOLUTION
14.3. Transport hazard class(es): II
14.4. Packing group: 8
Hazard label: C5
Limited quantity: 1 L
Transport category: 2
Hazard No: 80
Tunnel restriction code: E

Other applicable information (land transport)
Excepted quantity: E2

Inland waterways transport (ADN)

14.1. UN number: UN 1824
14.2. UN proper shipping name: SODIUM HYDROXIDE, SOLUTION
14.3. Transport hazard class(es): II
14.4. Packing group: 8
Hazard label: C5
Limited quantity: 1 L

Other applicable information (inland waterways transport)
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1824
14.2. UN proper shipping name: SODIUM HYDROXIDE, SOLUTION
14.3. Transport hazard class(es): II
14.4. Packing group: 8
Hazard label: C5
Limited quantity: 1 L

Other applicable information (marine transport)
Excepted quantity: E2
14.1. UN number: UN 1824
14.2. UN proper shipping name: SODIUM HYDROXIDE, SOLUTION
14.3. Transport hazard class(es): II
14.4. Packing group: 8
Hazard label: 8

Special Provisions: A3 A803
Limited quantity Passenger: 0.5 L
IATA-packing instructions - Passenger: 851
IATA-max. quantity - Passenger: 1 L
IATA-packing instructions - Cargo: 855
IATA-max. quantity - Cargo: 30 L

Other applicable information (air transport)
Passenger-LQ: Y840
Excepted quantity: E2

14.5. Environmental hazards
ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user
refer to chapter 6-8

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
irrelevant

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulatory information
1999/13/EC (VOC): No information available.
Additional information
The preparation is dangerous in the sense of Directive 1999/45/EC.
This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].
Not subject to regulation 96/82/EC.

National regulatory information
Employment restrictions: Observe employment restrictions for young people.
Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment
Chemical safety assessments for substances in this mixture were not carried out.
SECTION 16: Other information

Changes
Rev.1.00; 18.12.2014, Initial release

Abbreviations and acronyms
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the
CAS Chemical Abstracts Service
DNEL: Derived No Effect Level
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect level
NTP: National Toxicology Program
N/A: not applicable
OSHA: Concerning the International Transport of Dangerous Goods by Rail
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
SARA: Superfund Amendments and Reauthorization Act
SVHC: substance of very high concern
TRGS Technische Regeln für Gefahrstoffe
TSCA: Toxic Substances Control Act
VOC: Volatile Organic Compounds
VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe
WGK: Wassergefährdungsklasse

Full text of R phrases referred to under Sections 2 and 3
22 Harmful if swallowed.
35 Causes severe burns.
36 Irritating to eyes.
41 Risk of serious damage to eyes.

Full text of H statements referred to under Sections 2 and 3
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.

Further Information
The above information describes exclusively the safety requirements of the product and is based on our
today knowledge. The information is intended to give you advice about the safe handling of the
product named in this safety data sheet, for storage, processing, transport and disposal. The
information cannot be transferred to other products. In the case of mixing the product with other products or in
the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)