Retention of the substance / mixture and of the company / undertaking

1.1 Product identifier

Trade name: DET-AC III Slave / DET-AC III Master

Registration number (REACH): not relevant (article)

CAS number: not relevant (article)

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

Relevant identified uses: Fire fighting equipment

1.3 Details of the supplier of the safety data sheet

Minimax GmbH & Co.KG
Industriestrasse 10/12
23840 Bad Oldesloe
Germany

Telephone: +49 (0) 4531 - 803 0
Telefax: +49 (0) 4531 - 803 248
Website: www.minimax.de

National contact: MV Global R&D
Technical Product Management Halocarbon based Products
E-Mail: Habitzlw@minimax.at
Technical Product Management
E-Mail: FoehreS@minimax.de

E-mail (competent person): sdb@csb-online.de

Please do not use this e-mail address to ask for the latest safety data sheet. For this purpose contact Minimax GmbH & Co.KG.

1.4 Emergency telephone number

Emergency information service: Consultank GmbH +49 (0) 178 433 7434

<table>
<thead>
<tr>
<th>Poison centre</th>
<th>Name</th>
<th>Telephone</th>
<th>Telefax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Giftinformationszentrum - Nord Göttingen</td>
<td>+49 551 19240</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

<table>
<thead>
<tr>
<th>Classification</th>
<th>Hazard class</th>
<th>Category</th>
<th>Hazard class and category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1C</td>
<td>hazardous to the aquatic environment - chronic hazard</td>
<td>3</td>
<td>Aquatic Chronic 3</td>
<td>H412</td>
</tr>
</tbody>
</table>

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Spillage and fire water can cause pollution of watercourses. May displace oxygen and cause rapid suffocation.

2.2 Label elements

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

Signal word: not required
Pictograms: not required
Hazard statements
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

There is no additional information.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
SECTION 3: Composition/information on ingredients

3.1 Substances
not relevant (article)

3.2 Article

<table>
<thead>
<tr>
<th>Hazardous ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of substance</td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Other
non-spillable battery fitted
airbug gas generator fitted

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes
Self-protection of the first aider.
Remove affected person from the danger area and lay down.
Do not leave affected person unattended.

Following inhalation
Provide fresh air.
If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.
Mouth to mouth resuscitation should be avoided. Use alternative methods, preferably with oxygen or compressed air driven apparatus.

Following skin contact
After contact with skin, wash immediately with plenty of water/propylene glycol 400.
Thaw frosted parts carefully with cold water.
Call a physician immediately.
Following eye contact
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Following ingestion
Rinse mouth. Do not induce vomiting.
Get medical advice/attention if you feel unwell.

Notes for the doctor
none

4.2 Most important symptoms and effects, both acute and delayed
Asphyxiating gas, may displace oxygen and cause rapid suffocation.

4.3 Indication of any immediate medical attention and special treatment needed
Where appropriate provide artificial respiration.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
co-ordinate firefighting measures to the fire surroundings

5.2 Special hazards arising from the substance or mixture
Hazardous decomposition products: Section 10.

Hazardous combustion products
carbon monoxide (CO), carbon dioxide (CO2), hydrogen fluoride (HF)

5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes.
Do not allow firefighting water to enter drains or water courses.
Collect contaminated firefighting water separately.
Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters
self-contained breathing apparatus

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Remove persons to safety.
Ventilate affected area.
For emergency responders
Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions
Keep away from drains, surface and ground water.
Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up
Ventilate affected area.

Advices on how to clean up a spill
Ventilate affected area.

6.4 Reference to other sections
Hazardous combustion products: see section 5.
Personal protective equipment: see section 8.
Incompatible materials: see section 10.
Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Measures to prevent fire as well as aerosol and dust generation
Not required.

Specific notes/details
None.

Measures to protect the environment
Avoid release to the environment.

Advice on general occupational hygiene
Do not eat, drink and smoke in work areas.
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities
Flammability hazards
None.

Incompatible substances or mixtures
Incompatible materials: see section 10.
Protect against external exposure, such as heat.

**Consideration of other advice**
Keep away from food, drink and animal feedingstuffs.

**Ventilation requirements**
Provision of sufficient ventilation.

**Specific designs for storage rooms or vessels**

**Storage temperature**
recommended storage temperature: -20 - 40 °C

**Packaging compatibilities**
Keep only in original container.

### 7.3 Specific end use(s)
No information available.

**SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Protection goal, route of exposure</th>
<th>Used in</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>DNEL</td>
<td>1,286,130 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>acute - systemic effects</td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>DNEL</td>
<td>780 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>DNEL</td>
<td>1,000,000 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>chronic - local effects</td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>DNEL</td>
<td>147 mg/kg</td>
<td>human, dermal</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
</tbody>
</table>
### Relevant PNECs of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Environmental compartment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>PNEC</td>
<td>0.008 mg/l</td>
<td>freshwater</td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>PNEC</td>
<td>0.001 mg/l</td>
<td>marine water</td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>PNEC</td>
<td>1 mg/l</td>
<td>sewage treatment plant (STP)</td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>PNEC</td>
<td>0.006 mg/kg</td>
<td>freshwater sediment</td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>PNEC</td>
<td>0.001 mg/kg</td>
<td>marine sediment</td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>PNEC</td>
<td>0.006 mg/kg</td>
<td>soil</td>
</tr>
</tbody>
</table>

### 8.2 Exposure controls

#### Appropriate engineering controls

General ventilation.

#### Individual protection measures (personal protective equipment)

**Eye/face protection**

Use protective eyewear to guard against splash of liquids.

**Hand protection**

<table>
<thead>
<tr>
<th>Material</th>
<th>Material thickness</th>
<th>Breakthrough times of the glove material</th>
</tr>
</thead>
<tbody>
<tr>
<td>data are not available</td>
<td>data are not available</td>
<td>data are not available</td>
</tr>
</tbody>
</table>

Wear suitable gloves.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Wear cold insulating gloves/face shield/eye protection.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

Self-contained breathing apparatus.
Environmental exposure controls
Use appropriate container to avoid environmental contamination.
Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>Form</td>
<td>fluid</td>
</tr>
<tr>
<td>Colour</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>light</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>these information are not available</td>
</tr>
<tr>
<td><strong>Other safety parameters</strong></td>
<td></td>
</tr>
<tr>
<td>pH (value)</td>
<td>these information are not available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>these information are not available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>49 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>these information are not available</td>
</tr>
<tr>
<td>Flammability (solid, gas) (fluid)</td>
<td>not relevant</td>
</tr>
<tr>
<td><strong>Explosive limits</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit (LEL)</td>
<td>these information are not available</td>
</tr>
<tr>
<td>Upper explosion limit (UEL)</td>
<td>these information are not available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>these information are not available</td>
</tr>
<tr>
<td>Density</td>
<td>these information are not available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>these information are not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>these information are not available</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>not miscible in any proportion</td>
</tr>
</tbody>
</table>
Partition coefficient

n-octanol/water (log KOW) these information are not available
Auto-ignition temperature these information are not available
Relative self-ignition temperature for solids not relevant
(Fluid)
Decomposition temperature these information are not available

Viscosity

Kinematic viscosity these information are not available
Dynamic viscosity 1 mPa s at 20 °C
Explosive properties not explosive
Oxidising properties shall not be classified as oxidising

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.
Hazardous combustion products: see section 5.
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification procedure

If not otherwise specified the classification is based on:
Ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Exposure route</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Method</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2,2,4,5,5,5-nona-fluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>oral</td>
<td>LD50</td>
<td>&gt;2,000 mg/kg</td>
<td>rat</td>
<td>ECHA</td>
<td></td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5-nona-fluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>dermal</td>
<td>LD50</td>
<td>&gt;2,000 mg/kg</td>
<td>rat</td>
<td>ECHA</td>
<td></td>
</tr>
</tbody>
</table>

Skin corrosion/irritation

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Serious eye damage/eye irritation

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory or skin sensitisation

Skin sensitisation

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory sensitisation

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.
Carcinogenicity
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Aspiration hazard
Shall not be classified as presenting an aspiration hazard.

Other information
Freezing.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)
Test data are not available for the complete mixture.

Aquatic toxicity (acute) of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Method</th>
<th>Source</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2,2,4,5,5,5 -nonafluoro-4-(trifluoro-methyl)-3-pentanone</td>
<td>756-13-8</td>
<td>LC50</td>
<td>&gt;1,070 mg/l</td>
<td>fathead minnow (Pimephales promelas)</td>
<td>ECHA</td>
<td>96 h</td>
<td></td>
</tr>
<tr>
<td>1,1,1,2,2,4,5,5,5 -nonafluoro-4-(trifluoro-methyl)-3-pentanone</td>
<td>756-13-8</td>
<td>EC50</td>
<td>&gt;1,080 mg/l</td>
<td>daphnia magna</td>
<td>ECHA</td>
<td>48 h</td>
<td></td>
</tr>
</tbody>
</table>
Aquatic toxicity (chronic)
Harmful to aquatic life with long lasting effects.
Test data are not available for the complete mixture.

12.2 Persistence and degradability

Degradability of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Process</th>
<th>Degradation rate</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>carbon dioxide generation</td>
<td>1.8–3.4%</td>
<td>28 d</td>
</tr>
</tbody>
</table>

Biodegradation
Data are not available.

Persistence
Data are not available.

12.3 Bioaccumulative potential
Data are not available.

Bioaccumulative potential of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>BCF</th>
<th>Log KOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-3-pentanone</td>
<td>756-13-8</td>
<td>4.8</td>
<td>3.08 (30 °C)</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil
Data are not available.

12.5 Results of PBT and vPvB assessment
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects
Data are not available.

Remarks
Wassergefährdungsklasse, WGK (water hazard class): 1
SECTION 13: Disposal considerations

13.1 Waste treatment methods
This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information
Do not empty into drains.

Waste treatment of containers/packagings
Handle contaminated packages in the same way as the substance itself.

Remarks
Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number
not subject to transport regulations

14.2 UN proper shipping name
-

14.3 Transport hazard class(es)
Class
-

14.4 Packing group
-

14.5 Environmental hazards
non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user
There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations
Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)
Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)
Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)
Not subject to ICAO-IATA.
supplementary labelling: "non spillable battery"
required airwaybill phrase: "not restricted as per special provision A67".
SECTION 15: Regulatory information

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

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier. Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

<table>
<thead>
<tr>
<th>Section</th>
<th>Former entry (text/value)</th>
<th>Actual entry (text/value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.8</td>
<td>International Civil Aviation Organization (ICAO-IATA/DGR): Not subject to ICAO-IATA.</td>
<td>International Civil Aviation Organization (ICAO-IATA/DGR): Not subject to ICAO-IATA. supplementary labelling: “non spillable battery” required airwaybill phrase: “not restricted as per special provision A67”.</td>
</tr>
</tbody>
</table>

Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>Hazardous to the aquatic environment - chronic hazard</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations (see IATA/DGR)</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No-Effect Level</td>
</tr>
<tr>
<td>EC No</td>
<td>The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>GHS</td>
<td>&quot;Globally Harmonized System of Classification and Labelling of Chemicals&quot; developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
</tbody>
</table>
Descriptions of used abbreviations

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>index No</td>
<td>The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008</td>
</tr>
<tr>
<td>log KOW</td>
<td>n-Octanol/water</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of &quot;Marine Pollutant&quot;)</td>
</tr>
<tr>
<td>NLP</td>
<td>No-Longer Polymer</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No-Effect Concentration</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

Key literature references and sources for data

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).
International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties.
Health hazards.
Environmental hazards.
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

<table>
<thead>
<tr>
<th>Code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

Responsible for the safety data sheet

C.S.B. GmbH
Düsseldorfer Str. 113
47809 Krefeld
Telephone: +49 (0) 2151 - 652086 - 0
Telefax: +49 (0) 2151 - 652086 - 9
e-Mail: info@csb-online.de
Website: www.csb-online.de
Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.