

# Safety Data Sheet according to Regulation (EC) No. 2015/830

## SECTION 1: Identification of the Substance/Mixture and the Company/Undertaking

**1.1 Product Identifier** 83180000 **Revision Date**: 31/01/2022

Product Name: CARBOMASTIC 18 NT PART B Supercedes Date: 29/05/2021

Version Number: 2

UFI Code: Q0F0-T02T-W00Q-N88Y

1.2 Relevant identified uses of the substance or mixture and uses

advised against

Base component of 2 components coating - Industrial use.

Advised against: Please see Technical Data Sheet.

Product to be mixed with:

Mixing ratio by volume Part A/

Part B:

1.3

CARBOMASTIC 18 NT PART A

Details of the supplier of the safety data sheet

Importer: None

Manufacturer: Carboline Norge AS

Postboks 593 3412 Lierstranda

Norway

4:1

Regulatory / Technical Information:

+47 32 85 73 00 +47 32 85 74 00

Datasheet Produced by: Tarka, Malgorzata - hms@carboline.com

1.4 Emergency telephone number: CHEMTREC +1 703 5273887 (Outside US)

## **SECTION 2: Hazard Identification**

#### 2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

#### **HAZARD STATEMENTS**

| Other EU extensions                 | EUH205 |
|-------------------------------------|--------|
| Flammable Liquid, category 3        | H226   |
| Aspiration Hazard, category 1       | H304   |
| Skin Irritation, category 2         | H315   |
| Skin Sensitizer, category 1         | H317   |
| Eye Irritation, category 2          | H319   |
| STOT, repeated exposure, category 2 | H373   |

H411

Hazardous to the aquatic environment, Chronic, category 2

#### 2.2 Label elements

## Symbol(s) of Product



## Signal Word

Danger

#### Named Chemicals on Label

ethylbenzene, xylene, poly(bisphenol a-co-epichlorohydrin), glycidyl end-capped, Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

#### **HAZARD STATEMENTS**

| Other EU extensions  | EUH205   | Contains epoxy constituents. May produce an allergic reaction.                                   |
|--|----------|--|
| Flammable Liquid, category 3                                 | H226     | Flammable liquid and vapour.   |
| Aspiration Hazard, category 1                                | H304     | May be fatal if swallowed and enters airways.  |
| Skin Irritation, category 2                                  | H315     | Causes skin irritation.  |
| Skin Sensitizer, category 1                                  | H317     | May cause an allergic skin reaction.   |
| Eye Irritation, category 2                                   | H319     | Causes serious eye irritation.   |
| STOT, repeated exposure, category 2                          | H373     | May cause damage to organs through prolonged or repeated exposure.                               |
| Hazardous to the aquatic environment,<br>Chronic, category 2 | H411     | Toxic to aquatic life with long lasting effects.   |
| PRECAUTION PHRASES   |          |  |
|  | P260     | Do not breathe dust/fume/gas/mist/vapours/spray.   |
|  | P273     | Avoid release to the environment.  |
|  | P280     | Wear protective gloves/protective clothing/eye protection/ face protection.                      |
|  | P284     | Wear respiratory protection.   |
|  | P302+352 | IF ON SKIN: Wash with plenty of soap and water.  |
|  | P304+340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
|  | P331     | Do NOT induce vomiting.  |
|  | P333+313 | If skin irritation or rash occurs: Get medical advice/attention.                                 |

## 2.3 Other hazards

No Information

#### Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/vPvB in accordance with Annex XIII.

## **SECTION 3: Composition/Information On Ingredients**

#### 3.2 Mixtures

## Hazardous ingredients

| Name According to EEC Reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight <= 700) | EINEC No.<br>500-033-5 | <u>CAS-No.</u><br>25068-38-6 | <u><b>%</b></u><br>50 - <75 | <u>Classifications</u><br>H315-317-319-411 | Aquatic Chronic 2,<br>Eye Irrit. 2, Skin Irrit.<br>2, Skin Sens. 1 |
|--|------------------------|------------------------------|-----------------------------|--|--|
| poly(bisphenol a-co-<br>epichlorohydrin),<br>glycidyl end-capped   | 607-500-3              | 25036-25-3                   | 10 - <25                    | H315-317-319                               | Eye Irrit. 2, Skin Irrit.<br>2, Skin Sens. 1                       |

| Date Printed: 31/01/2022 Printed: 31/01/2022 | Product: 83180000 |
|--|-------------------|
|--|-------------------|

| xylene       | 215-535-7 | 1330-20-7 | 10 - <25   | H226-304-312-315<br>-319-332-335-373 | Acute Tox. 4 Dermal, Acute Tox. 4 Inhalation, Asp. Tox. 1, Eye Irrit. 2, Flam. Liq. 3, Skin Irrit. 2, STOT RE 2, STOT SE 3 RTI |
|--------------|-----------|-----------|------------|--------------------------------------|--|
| ethylbenzene | 202-849-4 | 100-41-4  | 1.0 - <2.5 | H225-304-332-373<br>-412             | Acute Tox. 4 Inhalation, Aquatic Chronic 3, Asp. Tox. 1, Flam. Liq. 2, STOT RE 2   |

| CAS-No.    | <u>M-Factors</u>                     | REACH Reg No.  |
|------------|--------------------------------------|--|
| 25068-38-6 |                                      | 01-2119456619-26   |
| 25036-25-3 |                                      |  |
| 1330-20-7  |                                      | 01-2119488216-32   |
| 100-41-4   |                                      | 01-2119489370-35   |
| Remarks:   | CAS No. 25068-38-6 identified as CAS | No. 1675-54-3, EC No. 216-823-5 under REACH Registration |

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

#### **SECTION 4: First-aid Measures**

#### 4.1 Description of First Aid Measures

GENERAL NOTES: Show this safety data sheet to the doctor in attendance.

AFTER INHALATION: Move to fresh air. Give oxygen or artificial respiration if needed. When risk of unconsciousness, place and transport the victim in secured recovery position. Provide fresh air, rest and warmth. Call a physician immediately. AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Do not use solvent or thinners to clean skin. AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

**AFTER INGESTION:** Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously: Keep head below hips to prevent aspiration of stomach vomit into lungs. Provide fresh air, rest and warmth.

#### Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

# 4.2 Most important symptoms and effects, both acute and delayed

May cause sensitization by skin contact. Danger of serious damage to health by prolonged exposure. Irritating to eyes and skin. Risk of serious damage to the lungs (by aspiration).

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

When symptoms persist or in all cases of doubt seek medical advice.

## **SECTION 5: Fire-fighting Measures**

#### 5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

**FOR SAFETY REASONS NOT TO BE USED:** Alcohol, Alcohol based solutions, any other media not listed above. Do not use a solid water stream as it may scatter and spread fire.

#### 5.2 Special hazards arising from the substance or mixture

Heating or fire conditions liberates toxic gas. Flash back possible over considerable distance. As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Vapours may form explosive mixtures with air. Solvent vapours are heavier than air and may spread along floors and ignite.

#### 5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Keep containers and surroundings cool with water spray.

## **SECTION 6: Accidental Release Measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition.

#### 6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

#### 6.3 Methods and material for containment and cleaning up

Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

#### 6.4 Reference to other sections

Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information

## **SECTION 7: Handling and Storage**

#### 7.1 Precautions for safe handling

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Electrical equipment should be protected to the appropriate standard. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapours or spray mist. Use only explosion-proof equipment. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used. Apply technical measures to comply with the occupational exposure limits (see section 8). People handling polyurethane or epoxy products must have received special training according to guidelines from the National Occupational Health and Safety Board. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

#### 7.2 Conditions for safe storage, including any incompatibilities

**CONDITIONS TO AVOID:** Avoid heat, sparks, flames and other ignition sources.

**STORAGE CONDITIONS:** Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Keep container closed. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Store in upright position only. Storage of flammable liquids.

#### 7.3 Specific end use(s)

The mixing and application to be in accordance with the technical data sheets.

## **SECTION 8: Exposure Controls/Personal Protection**

#### 8.1 Control parameters

#### **Ingredients with Occupational Exposure Limits**

(EU)

| <u>Name</u>   | CAS-No.    | LTEL ppm | STEL ppm | STEL mg/m3 | LTEL mg/m3 |
|---|------------|----------|----------|------------|------------|
| Reaction product: bisphenol-A-(epichlorhydrin epoxy resin (number average molecular weigh <= 700) | , =        |          |          |            |            |
| poly(bisphenol a-co-epichlorohydrin), glycidyl end-capped   | 25036-25-3 |          |          |            |            |
| xylene  | 1330-20-7  | 50       | 100      | 442        | 221        |
| ethylbenzene  | 100-41-4   | 100      | 200      | 884        | 442        |

Name CAS-No. OEL Note

Reaction product: bisphenol-A-(epichlorhydrin) 25068-38-6 epoxy resin (number average molecular weight

<= 700)

poly(bisphenol a-co-epichlorohydrin), glycidyl 25036-25-3

end-capped

xylene 1330-20-7 Can be absorbed through the skin.

ethylbenzene 100-41-4 Can be absorbed through the skin.

**FURTHER ADVICE:** Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation. Annotations: Carc = Capable of causing cancer and/or heritable genetic damage, Sen = Capable of causing occupational asthma, Sk = Can be absorbed through the skin.

#### 8.2 Exposure controls

#### **Personal Protection**

**RESPIRATORY PROTECTION:** Wear a battery powered assisted air-fed mask during spraying operations and long-term exposure. When working in confined or poorly ventilated spaces, a battery powered assisted air-fed mask must be used. When painting small areas, or when using a roller or brush, respiratory protection with combination filter (dust and gas filter, EN 14387:2004+A1:2008) may be used: Gas filter type A2 (organic substances). Dust filter P3 (for fine dust).

EYE PROTECTION: If splashes are likely to occur, wear: Face-shield, tightly fitting safety goggles (EN 166).

HAND PROTECTION: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). Long sleeved clothing. Remove and wash contaminated clothing before re-use. Use chemical resistant gloves and lotions and barrier creams to prevent drying of the skin. Protective gloves complying with EN 374: Butyl rubber. Nitril rubber. Recommended glove material for mixed product: Protective gloves complying with EN 374: Butyl rubber. Nitril rubber.

**OTHER PROTECTIVE EQUIPMENT:** Ensure that eyewash stations and safety showers are close to the workstation location. **ENGINEERING CONTROLS:** Ensure adequate ventilation, especially in confined areas.

#### **Chemical Name:**

Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

**EC No.: CAS-No.:** 500-033-5 25068-38-6

#### **DNELs - Derived no effect level**

|            | Workers      |               |               |                 | Con          | sumers         |               |                 |
|------------|--------------|---------------|---------------|-----------------|--------------|----------------|---------------|-----------------|
| Route of   | Acute effect | Acute effects | Chronic       | Chronic effects | Acute effect | Acute effects  | Chronic       | Chronic effects |
| Exposure   | local        | systemic      | effects local | systemic        | local        | systemic       | effects local | systemic        |
| Oral       | Not required |               |               | 0.75 mg/kg      |              | 0.75 mg/kg bw/ |               |                 |
| Inhalation |              | 12.25 mg/m3   |               | 12.25 mg/m3     |              | bw/day         |               | day             |
| Dermal     |              | 8.33 mg/kg    |               | 8.33 mg/kg bw/  |              | 3.571 mg/kg    |               | 3.571 mg/kg bw/ |
|            | _            | bw/day        |               | day             |              | bw/day         |               | day             |

#### PNEC's - Predicted no effect concentration

| Environmental protection target    | PNEC         |
|------------------------------------|--------------|
| Fresh water                        | 0.006 mg/l   |
| Fresh water sediments              | 0.996 mg/L   |
| Marine water                       | 0.0006 mg/l  |
| Marine sediments                   | 0.0996 mg/kg |
| Food chain                         |              |
| Microorganisms in sewage treatment |              |
| soil (agricultural)                | 0.196 mg/kg  |
| Air                                |              |

## **Chemical Name:**

xylene

**EC No.: CAS-No.:** 215-535-7 1330-20-7

#### **DNELs - Derived no effect level**

|            |                       | Wo                    | orkers        |                 |                       | Con           | sumers        |                        |
|------------|-----------------------|-----------------------|---------------|-----------------|-----------------------|---------------|---------------|------------------------|
| Route of   | Acute effect          | Acute effects         | Chronic       | Chronic effects | Acute effect          | Acute effects | Chronic       | Chronic effects        |
| Exposure   | local                 | systemic              | effects local | systemic        | local                 | systemic      | effects local | systemic               |
| Oral       |                       | Not                   | required      |                 | 174 mg/m <sup>3</sup> | 174 mg/m³     |               | 1.6 mg/kg bw/          |
| Inhalation | 289 mg/m <sup>3</sup> | 289 mg/m <sup>3</sup> |               | 77 mg/m³        |                       |               | _             | day                    |
| Dermal     |                       |                       | _             | 180 mg/kg bw/   |                       |               |               | 14.8 mg/m <sup>3</sup> |
|            |                       |                       |               | day             |                       |               |               | 108 mg/kg bw/          |
|            |                       |                       |               |                 |                       |               |               | day                    |

PNEC's - Predicted no effect concentration

| Environmental protection target    |             |
|------------------------------------|-------------|
|                                    | PNEC        |
| Fresh water                        | 0.327 mg/L  |
| Fresh water sediments              | 12.46 mg/kg |
| Marine water                       | 0.327 mg/L  |
| Marine sediments                   | 12.46 mg/kg |
| Food chain                         |             |
| Microorganisms in sewage treatment | 6.58 mg/L   |
| soil (agricultural)                | 2.31 mg/kg  |
| Air                                |             |

## **SECTION 9: Physical and Chemical Properties**

| 9.1 | Information on | basic physic | al and cher | nical properties |
|-----|----------------|--------------|-------------|------------------|
|     | Appearance:    |              |             | Colourless       |

Physical State LIQUID
Odor Solvent

Odor threshold Not determined PH Not determined

Melting point / freezing point (°C) Not determined

Boiling point/range (°C) 136 - 144
Flash Point, (°C) 26

Evaporation rate Not determined

Flammability (solid, gas) Not determined

Upper/lower flammability or explosive 1.0 - 7.0

limits

Vapour Pressure, mmHg Not determined

Vapour density >1 (air = 1)

Relative density 1.04 - 1.14

Solubility in / Miscibility with water Insoluble

Partition coefficient: n-octanol/water Not determined

Auto-ignition temperature (°C) >432

Decomposition temperature (°C)Not determinedViscosity75 - 90 KUExplosive propertiesNot determinedOxidising propertiesNot determined

#### 9.2 Other information

VOC Content g/l: 163

Grams of VOC per liter of coating product as applied per ISO 11890-1 and/or ISO 11890-2.

Specific Gravity (g/cm3) 1.11

## **SECTION 10: Stability and Reactivity**

#### 10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

No reactivity hazards known under normal storage and use conditions.

#### 10.4 Conditions to avoid

Avoid heat, sparks, flames and other ignition sources.

#### 10.5 Incompatible materials

Keep away from strong oxidising agents and strongly acid or alkaline materials.

#### 10.6 Hazardous decomposition products

In case of fire or hot work operations, hazardous decomposition products may be formed such as:Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), aliphatic amines, aldehydes.

## **SECTION 11: Toxicological Information**

#### 11.1 Information on toxicological effects

**Acute Toxicity:** 

Oral LD50: No information available on the product itself as the product is not tested.

Inhalation LC50: No information available on the product itself as the product is not tested.

Irritation: Irritating to eyes and skin.

Corrosivity: No information available.

Sensitization: May cause an allergic skin reaction.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

**Toxicity for reproduction:** No information available.

**STOT-single exposure:** No information available.

STOT-repeated exposure: Central nervous system depression.

**Aspiration hazard:** May be fatal if swallowed and enters airways.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

| CAS-No.    | Name According to EEC   | Oral LD50                | Dermal LD50                          | Vapor LC50        | Gas LC50          | Dust/Mist LC50 |
|------------|---|--------------------------|--------------------------------------|-------------------|-------------------|----------------|
| 25068-38-6 | Reaction product: bisphenol-<br>A-(epichlorhydrin) epoxy resin<br>(number average molecular<br>weight <= 700) | 5000 mg/kg<br>(oral-rat) | >2000 mg/kg<br>(dermal, rat M-<br>F) | No<br>information | No<br>information | No information |

1100 mg/kg 4500 ppmV >2000 mg/kg 11 mg/L (ATE 1.5 mg/L (ATE 1330-20-7 xylene (ATE dermal-(ATE inh -(oral-rat) inh/vapour) inh/dust/mist) rabbit) Gas) 5510 mg/kg, 3500 mg/kg 4000 ppm, 10000 ppm 100-41-4 ethylbenzene 1.5 mg/L rat, oral rabbit rat, 4h

#### Additional Information:

This product may contain Ethyl Benzene, which is listed by IARC as possibly carcinogenic to humans (Group 2B). This listing is based on inadequate evidence of carcinogenicity in humans and sufficient evidence in experimental animals. Chronic exposure causes drying effect on the skin and eczema. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Repeated skin contact leads to irritation and to sensitisation, possible with cross-sensitisation to other epoxies. Chronic exposure has been associated with various neurotoxic effects including permanent brain damage. The product is irritating to the eyes and may cause sensitisation to the respiratory system. Swallowing concentrated chemical may cause severe internal injury. Inhalation of vapour or mist can cause headache, nausea, irritation of nose, throat, and lungs.

## **SECTION 12: Ecological Information**

12.1 Toxicity:

EC50 48hr (Daphnia):

IC50 72hr (Algae):

No information
No information
No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

**12.4 Mobility in soil:** No information

12.5 Results of PBT and vPvB The product of

assessment:

The product does not meet the criteria for PBT/vPvB in accordance with Annex XIII.

40.0 011 1 11 11

12.6 Other adverse effects: No information

| CAS-No.    | Name According to EEC  | EC50 48hr  | IC50 72hr                                      | LC50 96hr  |
|------------|--|--|--|--|
| 25068-38-6 | Reaction product: bisphenol-A-<br>(epichlorhydrin) epoxy resin (number average<br>molecular weight <= 700) | 1.8 mg/L (Daphnia<br>magna, EC50,<br>48h,static) | 11 mg/L (Scenedesmus capricornutum,EC50r, 72h) | 1.5 mg/L (Rainbow trout),<br>3.6 mg/L (fish)   |
| 1330-20-7  | xylene   | 165 mg/L (Daphnia<br>magna 24h)                  | 3 - 5 mg/L (Selenastrum sp.)                   | 2 - 11 mg/L (Roccus<br>saxatilis), 8.2 mg/L (Salmo<br>gairdneri), 13.5 mg/L<br>(Lepomis macrichirus), 21.0<br>mg/L (Pimephales promelas) |
| 100-41-4   | ethylbenzene   | 1.37 mg/L  | No information                                 | 32 mg/L (Bluegill)   |

## **SECTION 13: Disposal Considerations**

13.1 WASTE TREATMENT METHODS: Do not burn, or use a cutting torch on, the empty drum. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local state, and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems.

European Waste Code: 08 01 11\*
Packaging Waste Code: 15 01 10\*

## **SECTION 14: Transport Information**

UN1263 14.1 UN number 14.2 UN proper shipping name **PAINT** 

> Not applicable Technical name

14.3 Transport hazard class(es)

Subsidiary shipping hazard Not applicable

14.4 Packing group

Marine Pollutant: Yes (Bisphenol-A epoxy resin) 14.5 Environmental hazards

14.6 Special precautions for user No Information EmS-No.: F-E, S-E

14.7 Transport in bulk according to Annex II

of MARPOL 73/78 and the IBC code

No Information

## SECTION 15: Regulatory Information

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

#### **National Regulations:**

**Denmark Product Registration Number:** Not available

Danish MAL Code: Not available

Danish MAL Code - Mixture: Not available

Not available **Sweden Product Registration Number:** 

**Norway Product Registration Number:** P-31569

3 WGK Class:

Covered by Directive 2012/18/EC (Seveso III): P5c, E2

Restrictions to product or to substances according to Annex XVII, Regulation (CE) 1907/2006:

Annex XIV - Authorisation List:

Name According to EEC CAS-No.

Not Applicable

SVHC - Substances of very high concern (Candidate List):

Name According to EEC CAS-No.

Not Applicable

#### 15.2 **Chemical Safety Assessment:**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16: Other Information

#### Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

Harmful in contact with skin. H312

Entry 3, 40

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

#### Reasons for revision

Changes have been made to Section 9 of the Safety Data Sheet (SDS). Please refer to the Physical and Chemical Properties information in Section 9 of this SDS. . .

List of References

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark ESIS (The European Chemical Substances Information System), provided by the European Commission Joint Research Centre in Ispra, Italy

Annex VI of the EU Council Directive 67/548/EEC

Council Directive 67/548/EEC - Annex I or EU Council Directive 1999/45/EC EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"

#### Acronym & Abbreviation Key

CLP Classification, Labeling & Packaging Regulation

EC European Commission
EU European Union
US United States

CAS Chemical Abstract Service

EINECS European Inventory of Existing Chemical Substances

REACH Registration, Evaluation, Authorization of Chemicals Regulation
GHS Globally Harmonized System of Classification and Labeling of Chemicals

LTEL Long term exposure limit
STEL Short term exposure limit
OEL Occupational exposure limit

ppm Parts per million

mg/m3 Milligrams per cubic meter

TLV Threshold Limit Value

ACGIH American Conference of Governmental Industrial Hygienists

OSHA Occupational Safety & Health Administration

PEL Permissible Exposure Limits
VOC Volatile organic compounds

g/l Grams per liter

mg/kg milligrams per kilogram

N/A Not applicable LD50 Lethal dose at 50%

LC50 Lethal concentration at 50%

EC50 Half maximal effective concentration
IC50 Half maximal inhibitory concentration
PBT Persistent bioaccumulative toxic chemical
vPvB Very persistent and very bioaccumulative

EEC European Economic Community

ADR International Transport of Dangerous Goods by Road RID International Transport of Dangerous Goods by Rail

UN United Nations

IMDG International Maritime Dangerous Goods Code IATA International Air Transport Association

MARPOL International Convention for the Prevention of Pollution From Ships, 1973 as modified by

the Protocol of 1978

IBC International Bulk Container

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.