

Safety data sheet

Page: 1/16

BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 05.10.2020 Version: 1.0
Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS_CPA_IE/EN)

Date of print 05.10.2020

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

1.1. Product identifier

Insignia

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

Relevant identified uses: crop protection product, fungicide

1.3. Details of the supplier of the safety data sheet

Company: BASF SE 67056 Ludwigshafen GERMANY Contact address:
BASF Ireland Ltd.
Asgard House, 19-20 City Quay
Dublin, D02 K744
Ireland

Telephone: +353 21 451-7100

E-mail address: product-safety-north@basf.com

1.4. Emergency telephone number

For products classified as hazardous in accordance with CLP: National Poisons Information Centre, Beaumont Hospital, Dublin 9 Emergency medical information: 8am-10pm (seven days)

Tel.: 01 8092566

International emergency number: Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

For the classification of the mixture the following methods have been applied: extrapolation on the concentration levels of the hazardous substances, on basis of test results and after evaluation of experts. The methodologies used are mentioned at the respective test results.

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

Acute Tox. 4 (Inhalation - dust) H332 Harmful if inhaled.

STOT SE 3 H335 May cause respiratory irritation. Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

Globally Harmonized System (GHS) in accordance with IE regulations.

Pictogram:





Signal Word: Warning

Hazard Statement:

H332 Harmful if inhaled.

H335 May cause respiratory irritation. H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

EUH401 To avoid risks to human health and the environment, comply with the

instructions for use.

Precautionary Statement:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

Precautionary Statements (Prevention):

P271 Use only outdoors or in a well-ventilated area.

P260 Do not breathe dust/gas/mist/vapours.

Precautionary Statements (Response):

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

P312 Call a POISON CENTER or physician if you feel unwell.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P391 Collect spillage.

Precautionary Statements (Storage):

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to a licensed hazardous waste disposal

contractor or collection site except for triple rinsed empty containers

which can be disposed of as non-hazardous waste.

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

Hazard determining component(s) for labelling: pyraclostrobin (ISO)

2.3. Other hazards

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

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

crop protection product, fungicide, water dispersible granules

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

Content (W/W): 20 % CAS Number: 175013-18-0

Skin Corr./Irrit. 2 INDEX-Number: 613-272-00-6

STOT SE 3 (irr. to respiratory syst.)

Aquatic Acute 1 Aquatic Chronic 1 M-factor acute: 100 M-factor chronic: 100

H315, H331, H335, H400, H410

Acute Tox. 3 (Inhalation - mist)

Silica gel, precipitated, crystalline free

Content (W/W): < 25 % CAS Number: 112926-00-8 REACH registration number: 01-

2119379499-16

Ammonium sulphate

Content (W/W): < 25 % CAS Number: 7783-20-2 EC-Number: 231-984-1

REACH registration number: 01-

2119455044-46

Kaolin

Content (W/W): < 10 % CAS Number: 1332-58-7 EC-Number: 310-194-1

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media: dry powder, foam, water spray

Unsuitable extinguishing media for safety reasons: carbon dioxide

5.2. Special hazards arising from the substance or mixture

Endangering substances: carbon monoxide, hydrogen chloride, Carbon dioxide, nitrogen oxides, sulfur oxides, organochloric compounds

Advice: The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Avoid dust formation.

6.2. Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Date / Revised: 05.10.2020 Version: 1.0 Previous version: none

Date previous version: not applicable

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environmental Protection Agency if it enters surface or ground waters. Keep people and animals away.

6.3. Methods and material for containment and cleaning up

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

Wear suitable protective equipment. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Avoid raising dust.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:

Dust can form an explosive mixture with air. Avoid dust formation. Prevent electrostatic charge sources of ignition should be kept well clear - fire extinguishers should be kept handy.

7.2. Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect against moisture. Protect from direct sunlight.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

Refer to the current schedule of occupational exposure standards published by the Irish HSA. For normal use and handling refer to the product label/leaflet. In all other cases the following apply.

8.2. Exposure controls

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: **Insignia**

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Wearing of closed work clothing is recommended. Handle in accordance with good industrial hygiene and safety practice. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form: low dusting fine granules

Colour: grey-brown

Odour: faint odour, smoky

Odour threshold:

Not determined since harmful by

inhalation.

pH value: approx. 5 - 7

(CIPAC standard water D, 1 %(m),

20 °C)

Melting temperature: approx. 64 °C

The data given are those of the

active ingredient.

Boiling point:

The product has not been tested.

Flash point:

not applicable, the product is a solid

Evaporation rate:

not applicable

Flammability: not highly flammable (Directive 92/69/EEC, A.10)

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

Lower explosion limit:

As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with

the intended use.

Upper explosion limit:

As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with

the intended use.

Vapour pressure:

negligible

Density: approx. 1.68 g/cm3 (OECD Guideline 109)

(20 °C)

Relative vapour density (air):

not applicable

Solubility in water: dispersible

Partitioning coefficient n-octanol/water (log Kow):

not applicable

Self ignition: Temperature: 296 °C (Method: Directive 92/69/EEC,

A.16)

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Viscosity, dynamic:

not applicable, the product is a solid

Explosion hazard: Based on the chemical structure (Directive 92/69/EEC, A.14)

there is no indication of explosive

properties.

Fire promoting properties: Based on its structural properties (Directive 92/69/EEC, A.17)

the product is not classified as

oxidizing.

9.2. Other information

Self heating ability: It is not a substance capable of

spontaneous heating.

SECTION 10: Stability and Reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Date / Revised: 05.10.2020 Version: 1.0 Date previous version: not applicable

Previous version: none

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN) Date of print 05.10.2020

10.3. Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

10.4. Conditions to avoid

See SDS section 7 - Handling and storage.

10.5. Incompatible materials

Substances to avoid:

strong acids, strong bases, strong oxidizing agents

10.6. Hazardous decomposition products

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Of low toxicity after single ingestion. Virtually nontoxic after a single skin contact. Of moderate toxicity after short-term inhalation.

Experimental/calculated data:

LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): approx. 4.5 mg/l 4 h (OECD Guideline 403)

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

No mortality was observed.

Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

There is no evidence of a skin-sensitizing potential.

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS_CPA_IE/EN)

Date of print 05.10.2020

Experimental/calculated data:

Buehler test guinea pig: Skin sensitizing effects were not observed in animal studies. (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate

Assessment of repeated dose toxicity:

After repeated exposure the prominent effect is local irritation. The substance may cause damage to the olfactory epithelium after repeated inhalation.

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

Previous version: none (ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

Information on: Kaolin

Assessment of repeated dose toxicity:

Repeated inhalative uptake of particles/dust reaching the alveoli may cause damage to the lungs.

Information on: Silica gel, precipitated, crystalline free

Assessment of repeated dose toxicity:

The substance may cause damage to the lung after repeated inhalation of high doses.

Aspiration hazard

No aspiration hazard expected.

The product has not been tested. The statement has been derived from the properties of the individual components.

Other relevant toxicity information

Misuse can be harmful to health.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

Toxicity to fish:

LC50 (96 h) 0.033 mg/l, Oncorhynchus mykiss (OECD Guideline 203, static)

Aquatic invertebrates:

EC50 (48 h) 0.0382 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants:

EC50 (72 h) 17.39 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201)

EC50 (72 h) 1.4 mg/l (biomass), Pseudokirchneriella subcapitata (OECD Guideline 201)

12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-vloxymethyl]phenyl}(N-methoxy)carbamate

Assessment biodegradation and elimination (H2O):

Not readily biodegradable (by OECD criteria).

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate Bioaccumulation potential:

Bioconcentration factor (BCF): 379 - 507, Oncorhynchus mykiss (OECD-Guideline 305) Accumulation in organisms is not to be expected.

12.4. Mobility in soil

Assessment transport between environmental compartments:

Adsorption in soil: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate

Assessment transport between environmental compartments:

Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

12.5. Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.7. Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

SECTION 14: Transport Information

Land transport

ADR

UN number UN3077

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(contains PYRACLOSTROBIN)

Transport hazard class(es): 9, EHSM

Packing group:

Ш

Environmental hazards: yes

Special precautions for

user: None known

RID

UN number UN3077

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(contains PYRACLOSTROBIN)

Transport hazard class(es): 9, EHSM Packing group: III

Environmental hazards: yes Special precautions for Non

user:

None known

Inland waterway transport

ADN

UN number UN3077

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(contains PYRACLOSTROBIN)

Transport hazard class(es): 9, EHSM Packing group: III Environmental hazards: yes

Special precautions for

user:

None known

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

Transport in inland waterway vessel

Not evaluated

Sea transport

IMDG

UN number: UN 3077

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(contains PYRACLOSTROBIN)

Transport hazard class(es): 9, EHSM

Packing group: III Environmental hazards: yes

Marine pollutant: YES

Special precautions for

user:

None known

Air transport

IATA/ICAO

UN number: UN 3077

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(contains PYRACLOSTROBIN)

Transport hazard class(es): 9, EHSM

Packing group: III Environmental hazards: yes

Special precautions for None known

user:

14.1. UN number

See corresponding entries for "UN number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS CPA IE/EN)

Date of print 05.10.2020

See corresponding entries for "Environmental hazards" for the respective regulations in the tables

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

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

Regulation:
Shipment approved:
Pollution name:
Pollution category:
Ship Type:
Not evaluated
Not evaluated
Not evaluated
Not evaluated
Not evaluated

Further information

The following provisions may apply for product in packages containing a net quantity of 5 kg or less ADR, RID, ADN: Special Provision 375;

IMDG: 2.10.2.7; IATA: A197;

TDG: Special Provision 99(2);

49CFR: §171.4 (c) (2).

SECTION 15: Regulatory Information

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

To avoid risks to man and the environment, comply with the instructions for use.

This product may be subject to the Seveso III Directive and amendments if specific threshold tonnages are exceeded.

For further medical advice Doctors should contact the National Poisons Information Centre at Beaumont Hospital, Dublin.

15.2. Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

SECTION 16: Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

<u>Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:</u>

Acute Tox. Acute toxicity

Date / Revised: 05.10.2020 Version: 1.0

Date previous version: not applicable Previous version: none

Product: Insignia

(ID no. 30470159/SDS_CPA_IE/EN)

Date of print 05.10.2020

STOT SE Specific target organ toxicity — single exposure
Aquatic Acute Hazardous to the aquatic environment - acute
Aquatic Chronic Hazardous to the aquatic environment - chronic

Skin Corr./Irrit. Skin corrosion/irritation H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

EUH401 To avoid risks to human health and the environment, comply with the

instructions for use.

H315 Causes skin irritation. H331 Toxic if inhaled.

Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code, IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.