

ANIOS CLEAN EXCEL D

Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name : ANIOS CLEAN EXCEL D
UFI : A4C5-XR7A-EF05-D722
Product code : 2416000
Use of the Substance/Mixture : Instrument Disinfectant
Substance type: : Mixture

For professional users only.

Product dilution information : No dilution information provided.

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

Identified uses : Medical devices . Dipping process
Recommended restrictions on use : Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company : Laboratoires ANIOS
1 rue de l'Espoir
59260 Lezennes, France Tel. + 33 (0)3 20 67 67 67
Fax. + 33 (0)3 20 67 67 68
fds@anios.com

1.4 Emergency telephone number

Emergency telephone number : +32-(0)3-575-5555 Trans-european, German speaking, 24/7
or +49 32 212249407 German speaking, 24/7

Poison Information Centre telephone number : +49 (0)551 38318854

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Section: 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2 H315
Serious eye damage, Category 1 H318

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Acute aquatic toxicity, Category 1 H400
 Chronic aquatic toxicity, Category 3 H412
 The classification of this product is based on toxicological assessment.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ eye protection/ face protection.

Response:
 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.

Hazardous components which must be listed on the label:

Alcohols, C8-10, ethoxylated
 Didecyl Dimethyl Ammonium Chloride

2.3 Other hazards

None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures****Hazardous components**

Chemical Name	CAS-No. EC-No. REACH No.	Classification REGULATION (EC) No 1272/2008	Concentration : [%]
Alcohols, C8-10, ethoxylated	71060-57-6 POLYMER	Acute toxicity Category 4; H302 Serious eye damage Category 1; H318	>= 5 - < 10
Didecyl Dimethyl Ammonium Chloride	7173-51-5 230-525-2 01-2119945987-15	Acute toxicity Category 4; H302 Skin corrosion Sub-category 1B; H314 Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 2; H411 M = 10	>= 5 - < 10
Isopropyl Alcohol	67-63-0	Flammable liquids Category 2; H225	>= 2.5 - < 5

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	200-661-7 01-2119457558-25	Eye irritation Category 2; H319 Specific target organ toxicity - single exposure Category 3; H336	
Amines, N-C12-14-alkyltrimethylenedi-	90640-43-0	Acute toxicity Category 3; H301 Skin corrosion Sub-category 1B; H314 Specific target organ toxicity - repeated exposure Category 1; H372 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410 M = 100 M(Chronic) = 1	$\geq 0.1 - < 0.25$
Chlorhexidine gluconate	18472-51-0 242-354-0 01-2119946568-22	Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410 M = 10 M(Chronic) = 1	$\geq 0.025 - < 0.1$

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

Section: 4. FIRST AID MEASURES**4.1 Description of first aid measures**

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Get medical attention if irritation develops and persists.
- If swallowed : Rinse mouth. Get medical attention if symptoms occur.
- If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

Section: 5. FIREFIGHTING MEASURES**5.1 Extinguishing media**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Not flammable or combustible.

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Hazardous combustion products : Depending on combustion properties, decomposition products may include following materials:
Carbon oxides
nitrogen oxides (NOx)
Hydrogen chloride

5.3 Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Advice for emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

6.2 Environmental precautions

Environmental precautions : Do not allow contact with soil, surface or ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

6.4 Reference to other sections

See Section 1 for emergency contact information.
For personal protection see section 8.
See Section 13 for additional waste treatment information.

Section: 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation. Wash hands

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thoroughly after handling. Do not breathe spray, vapour. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature : 5 °C to 25 °C

7.3 Specific end uses

Specific use(s) : Medical devices . Dipping process

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters****Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Isopropyl Alcohol	67-63-0	AGW	200 ppm 500 mg/m ³	TRGS 900
Further information	Y	When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child		

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
Isopropyl Alcohol	67-63-0	Acetone: 25 mg/l (Blood)	Immediately after exposition or after working hours	TRGS 903
		Acetone: 25 mg/l (Urine)	Immediately after exposition or after working hours	TRGS 903

DNEL

Isopropyl Alcohol	:	<p>End Use: Workers Exposure routes: Dermal Potential health effects: Long-term systemic effects 888 mg/kg</p> <p>End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 500 mg/m³</p> <p>End Use: Consumers Exposure routes: Dermal Potential health effects: Long-term systemic effects 319 mg/kg</p> <p>End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term systemic effects</p>
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	Value: 89 mg/m ³
	End Use: Consumers
	Exposure routes: Ingestion
	Potential health effects: Long-term systemic effects
	26 mg/kg

PNEC

Isopropyl Alcohol	: Fresh water Value: 140.9 mg/l
	Marine water Value: 140.9 mg/l
	Intermittent use/release Value: 140.9 mg/l
	Fresh water Value: 552 mg/kg
	Marine sediment Value: 552 mg/kg
	Soil Value: 28 mg/kg
	Sewage treatment plant Value: 2251 mg/l
	Oral Value: 160 mg/kg

8.2 Exposure controls

Appropriate engineering controls

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Eye/face protection (EN 166) : Safety goggles
Face-shield

Hand protection (EN 374) : Recommended preventive skin protection
Gloves
Nitrile rubber
butyl-rubber
Breakthrough time: 1 – 4 hours

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Minimum thickness for butyl-rubber 0.3 mm for nitrile rubber 0.2 mm or equivalent (please refer to the gloves manufacturer/distributor for advise).
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin and body protection (EN 14605) : No special protective equipment required.

Respiratory protection (EN 143, 14387) : None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU requirements(89/656/EEC, (EU) 2016/425), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

Environmental exposure controls

General advice : Consider the provision of containment around storage vessels.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state	: liquid
Colour	: clear, blue
Odour	: Perfumes, fragrances
pH	: 6.5 - 7.5, 100 %
Particle characteristics	
Assessment	: not applicable
Particle size	: not applicable
Particle Size Distribution	: not applicable
Dustiness	: not applicable
Specific surface area	: not applicable
Surface charge/Zeta potential	: not applicable
Shape	: not applicable
Crystallinity	: not applicable
Surface treatment /Coatings	: not applicable
Flash point	: Not applicable.
Odour Threshold	: Not applicable and/or not determined for the mixture
Melting point/freezing point	: Not applicable and/or not determined for the mixture
Boiling point, initial boiling point and boiling range	: Not applicable and/or not determined for the mixture
Evaporation rate	: Not applicable and/or not determined for the mixture
Flammability	: Not applicable and/or not determined for the mixture
Upper explosion limit	: Not applicable and/or not determined for the mixture

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Lower explosion limit	: Not applicable and/or not determined for the mixture
Vapour pressure	: Not applicable and/or not determined for the mixture
Relative vapour density	: Not applicable and/or not determined for the mixture
Density and / or relative density	: 0.992 - 0.994
Water solubility	: soluble
Solubility in other solvents	: Not applicable and/or not determined for the mixture
Partition coefficient: n-octanol/water (log value)	: Not applicable and/or not determined for the mixture
Auto-ignition temperature	: Not applicable and/or not determined for the mixture
Thermal decomposition	: Not applicable and/or not determined for the mixture
Viscosity, kinematic	: Not applicable and/or not determined for the mixture
Explosive properties	: Not applicable and/or not determined for the mixture
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

9.2 Other information

Not applicable and/or not determined for the mixture

Section: 10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials:
Carbon oxides
nitrogen oxides (NO_x)
Hydrogen chloride

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Product

Acute oral toxicity : Acute toxicity estimate : > 2,000 mg/kg

Acute inhalation toxicity : There is no data available for this product.

Acute dermal toxicity : There is no data available for this product.

Skin corrosion/irritation : Skin irritation

Serious eye damage/eye irritation : There is no data available for this product.

Respiratory or skin sensitization : There is no data available for this product.

Carcinogenicity : There is no data available for this product.

Reproductive effects : There is no data available for this product.

Germ cell mutagenicity : There is no data available for this product.

Teratogenicity : There is no data available for this product.

STOT - single exposure : There is no data available for this product.

STOT - repeated exposure : There is no data available for this product.

Aspiration toxicity : There is no data available for this product.

Components

Acute oral toxicity : Isopropyl Alcohol LD50 rat: 5,840 mg/kg

Amines, N-C12-14-alkyltrimethylenedi- LD50 rat: 200 mg/kg

Chlorhexidine gluconate LD50 rat: 2,135 mg/kg

Components

Acute inhalation toxicity : Isopropyl Alcohol 4 h LC50 rat: > 30 mg/l
Test atmosphere: vapour

Chlorhexidine gluconate 4 h LC50 rat: 0.365 mg/l
Test atmosphere: dust/mist

Components

Acute dermal toxicity : Didecyl Dimethyl Ammonium Chloride LD50 rabbit: 2,930 mg/kg

Isopropyl Alcohol LD50 rabbit: 12,870 mg/kg

Chlorhexidine gluconate LD50 rabbit: > 2,000 mg/kg

Potential Health Effects

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Eyes : Causes serious eye damage.

Skin : Causes skin irritation.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.
Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Irritation

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

11.2 Information on other hazards

Further information : no data available

Section: 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Environmental Effects : Very toxic to aquatic life with long lasting effects.

Product

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

Components

Toxicity to fish : Alcohols, C8-10, ethoxylated
96 h LC50 Oncorhynchus mykiss (rainbow trout): 4.6 mg/l

Didecyl Dimethyl Ammonium Chloride
96 h LC50 Fish: > 1 mg/l

Isopropyl Alcohol
96 h LC50 Pimephales promelas (fathead minnow): 9,640 mg/l

Amines, N-C12-14-alkyltrimethylenedi-
96 h LC50 Danio rerio (zebra fish): 0.148 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : Didecyl Dimethyl Ammonium Chloride
48 h EC50 Daphnia magna (Water flea): 0.029 mg/l

Isopropyl Alcohol

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LC50 Daphnia magna (Water flea): > 10,000 mg/l

Amines, N-C12-14-alkyltrimethylenedi-
48 h EC50 Daphnia magna (Water flea): 0.006 mg/l

Chlorhexidine gluconate
48 h EC50: 0.06 mg/l

Components

Toxicity to algae : Alcohols, C8-10, ethoxylated
72 h EC50 Desmodesmus subspicatus (green algae): 1.6 mg/l

Didecyl Dimethyl Ammonium Chloride
72 h EC50 Pseudokirchneriella subcapitata (algae): 0.062 mg/l

Amines, N-C12-14-alkyltrimethylenedi-
72 h EC50 Pseudokirchneriella subcapitata (green algae): 0.0652 mg/l

12.2 Persistence and degradability

Product

Biodegradability : The surfactants contained in the product are biodegradable according to the requirements of the detergent regulation 648/2004/EC

Components

Biodegradability : Alcohols, C8-10, ethoxylated
Result: Biodegradable

Didecyl Dimethyl Ammonium Chloride
Result: Biodegradable

Isopropyl Alcohol
Result: Readily biodegradable.

Amines, N-C12-14-alkyltrimethylenedi-
Result: Biodegradable

Chlorhexidine gluconate
Result: Readily biodegradable.

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

ANIOS CLEAN EXCEL D**12.6 Endocrine disrupting properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

12.7 Other adverse effects

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

13.1 Waste treatment methods

- | | |
|-----------------------------------|---|
| Product | : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste disposal facility. |
| Contaminated packaging | : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations. |
| Guidance for Waste Code selection | : Organic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations. |

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (ADR/ADN/RID)

- | | |
|-----------------------------------|---|
| 14.1 UN number or ID number | : 3082 |
| 14.2 UN proper shipping name | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Alkyl ammonium chloride, Amines, N-C12-14-alkyltrimethylenedi-) |
| 14.3 Transport hazard class(es) | : 9 |
| 14.4 Packing group | : III |
| 14.5 Environmental hazards | : Yes |
| 14.6 Special precautions for user | : None |

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Air transport (IATA)

- 14.1 UN number or ID number : 3082
- 14.2 UN proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(Alkyl ammonium chloride, Amines, N-C12-14-alkyltrimethylenedi-)
- 14.3 Transport hazard class(es) : 9
- 14.4 Packing group : III
- 14.5 Environmental hazards : Yes
- 14.6 Special precautions for user : None

Sea transport (IMDG/IMO)

- 14.1 UN number or ID number : 3082
- 14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Alkyl ammonium chloride, Amines, N-C12-14-alkyltrimethylenedi-)
- 14.3 Transport hazard class(es) : 9
- 14.4 Packing group : III
- 14.5 Environmental hazards : Yes
- 14.6 Special precautions for user : None
- 14.7 Maritime transport in bulk according to IMO instruments : Not applicable.

Section: 15. REGULATORY INFORMATION

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

- according to Detergents Regulation EC 648/2004 : 5 % or over but less than 15 %: Non-ionic surfactants
Other constituents: Perfumes
Contains: Disinfectants

- Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ENVIRONMENTAL HAZARDS E1
Lower tier : 100 t
Upper tier : 200 t

- Candidate List of Substances of Very High Concern for Authorisation : Not applicable.

National Regulations

Take note of Dir 94/33/EC on the protection of young people at work.

- Hazard class for water : WGK 3

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Classification according to AwSV, Annex 1

German storage class : 12

15.2 Chemical Safety Assessment

Information from the chemical safety assessment of substances present in the product is included in the appropriate sections of this safety data sheet, whenever necessary.

Section: 16. OTHER INFORMATION**Procedure used to derive the classification according to REGULATION (EC) No 1272/2008**

Classification	Justification
Skin irritation 2, H315	Based on product data or assessment
Serious eye damage 1, H318	Calculation method
Acute aquatic toxicity 1, H400	Calculation method
Chronic aquatic toxicity 3, H412	Calculation method

Full text of H-Statements

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical

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Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Prepared by : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Annex: Exposure Scenarios