

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

A12 HARD SURFACE CLEANER & ODOUR NEUTRAL 1.1 Product identifier:

Substance type: **CLP Mixture**

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

Use of the Substance/Mixture : CLEANER

Recommended restrictions on use : Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet:

COMPANY IDENTIFICATION

LOCAL COMPANY IDENTIFICATION

Ecolab Ltd. PO Box 11; Winnington Avenue

Ecolab Ltd. PO Box 11; Winnington Avenue

Northwich, Cheshire,, CW8 4DX, United Kingdom

Northwich, Cheshire,, CW8 4DX, United Kingdom TEL: + 44 (0)1606 74488

TEL: + 44 (0)1606 74488

For Product Safety information please contact: msdseame@nalco.com

1.4 Emergency telephone number:

Emergency telephone number Trans-European

+441618841235

+32-(0)3-575-5555 Trans-European Address European

Economic Area HQ

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Section: 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226 Skin irritation, Category 2 H315 Serious eye damage, Category 1 H318 Chronic aquatic toxicity, Category 3 H412

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms





Signal Word Danger

Hazard Statements H226 Flammable liquid and vapour.

Causes skin irritation. H315

Causes serious eve damage. H318

Harmful to aquatic life with long lasting H412

effects.

Precautionary Statements : Prevention:

P210 Keep away from heat, hot surfaces, sparks,

open flames and other ignition sources. No

smoking.

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:

C9-C11 Alkyl alcohol, ethoxylate Didecyl-Dimethyl-Ammonium chloride

Phenethyl Alcohol

Special labelling of certain

mixtures

: Contains: benzyl salicylate TRANS-3-PHENYL-2-PROPEN-1-

OL 6-Octen-1-ol, 3,7-dimethyl- 1,3-benzodioxole-5-

carboxaldehyde, piperonal May produce an allergic reaction.

2.3 Other hazards

None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration:
	EC-No.	(REGULATION (EC) No 1272/2008)	[%]
	REACH No.		
C9-C11 Alkyl alcohol,	68439-46-3	Acute toxicity Category 4; H302	10 - < 20
ethoxylate		Serious eye damage Category 1; H318	
Isopropanol	67-63-0 200-661-7 01-2119457558-25	Flammable liquids Category 2; H225 Eye irritation Category 2; H319 Specific target organ toxicity - single exposure Category 3; H336	3 - < 5
Didecyl-Dimethyl-Ammonium chloride	7173-51-5 230-525-2 01-2119945987-15	Acute toxicity Category 4; H302 Skin corrosion Category 1B; H314 Chronic aquatic toxicity Category 2; H411 Acute aquatic toxicity Category 1; H400	1 - < 2.5
Terpineol	8000-41-7 232-268-1 01-2119553062-49	Skin irritation Category 2; H315 Eye irritation Category 2; H319	1 - < 2.5
Phenethyl Alcohol	60-12-8 200-456-2 01-2119963921-31	Acute toxicity Category 4; H312 Eye irritation Category 2; H319 Reproductive toxicity Category 2; H361d	1 - < 2.5
4-tert-butylcyclohexyl acetate	32210-23-4 250-954-9 01-2119976286-24	Chronic aquatic toxicity Category 2; H411	1 - < 2.5
benzyl salicylate	118-58-1	Skin sensitization Category 1; H317	0.5 - < 1
	204-262-9	Chronic aquatic toxicity Category 2; H411	

	01-2119969442-31		
TRANS-3-PHENYL-2- PROPEN-1-OL	104-54-1 01-2119934496-29	Skin sensitization Category 1;	0.25 - < 0.5
6-Octen-1-ol, 3,7-dimethyl-	106-22-9 203-375-0 01-2119453995-23	Skin irritation Category 2; H315 Eye irritation Category 2; H319 Skin sensitization Sub-category 1B; H317	0.25 - < 0.5
1,3-benzodioxole-5- carboxaldehyde	120-57-0 204-409-7 01-2119983608-21	Acute toxicity Category 4; Skin sensitization Category 1;	0.1 - < 0.25

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

If inhaled : Remove to fresh air.

Treat symptomatically.

Get medical attention if symptoms occur.

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.

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.

If swallowed : Rinse mouth.

Get medical attention if symptoms occur.

Protection of first-aiders : In event of emergency assess the danger before taking action.

Do not put yourself at risk of injury. If in doubt, contact

emergency responders. Use personal protective equipment as

required.

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 : Foam

Carbon dioxide Dry powder

Other extinguishing agent suitable for Class B fires

For large fires, use water spray or fog, thoroughly drenching

the burning material.

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Fire Hazard

Keep away from heat and sources of ignition. Flash back possible over considerable distance. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Hazardous combustion

products

: Depending on combustion properties, decomposition products

may include following materials:

Carbon oxides

nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment

for firefighters

: Use personal protective equipment.

Further information : Use water spray to cool unopened containers. 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.

Remove all sources of ignition.

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 : Eliminate all ignition sources if safe to do so.

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. Take necessary action to

avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from fire, sparks and heated surfaces. Do not breathe spray, vapour. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling.

Use only with adequate ventilation.

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Remove and wash contaminated clothing before reuse. 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 away from heat and sources of ignition. Keep in a cool, well-ventilated place. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in

suitable labelled containers.

Suitable material : Keep in properly labelled containers.

7.3 Specific end uses

Specific use(s) : CLEANER

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Isopropanol	67-63-0	TWA	400 ppm 999 mg/m3	UKCOSSTD
		STEL	500 ppm 1,250 mg/m3	UKCOSSTD

DNEL

Isopropanol	:	End Use: Workers Exposure routes: Dermal Potential health effects: Long-term systemic effects Value: 888 mg/cm2
		End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 500 mg/m3
		End Use: Consumers Exposure routes: Dermal

		Potential health effects: Long-term systemic effects Value: 319 mg/cm2
		End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 89 mg/m3
		End Use: Consumers Exposure routes: Ingestion Potential health effects: Long-term systemic effects Value: 26 ppm
6-Octen-1-ol, 3,7-dimethyl-	:	End Use: Workers Exposure routes: Dermal Potential health effects: long term - systemic 45.8 mg/kg
		End Use: Workers Exposure routes: Inhalation Potential health effects: long term - systemic Value: 161.8 mg/m3
		End Use: Workers Exposure routes: Dermal Potential health effects: long-term - local Value: 29.5 mg/cm2

PNEC

PNEC	
Isopropanol	: 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
6-Octen-1-ol, 3,7-dimethyl-	: Fresh water Value: 0.0024 mg/l
	Marine water Value: 0.00024 mg/l
	Intermittent release Value: 0.024 mg/l
	STP Value: 580 mg/l

	Fresh water sediment Value: 0.0256 mg/kg
	Marine sediment Value: 0.00256 mg/kg
	Soil Value: 0.00371 mg/kg

8.2 Exposure controls

Appropriate engineering controls

Effective exhaust ventilation system.

Maintain air concentrations below occupational exposure standards.

Individual protection measures

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice.Remove and wash contaminated clothing before reuse.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

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)

: Wear suitable protective clothing.

Respiratory protection (EN

143, 14387)

: When respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, (EU) 2016/425), or

equivalent, with filter type:A-P

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

Appearance : liquid

Colour : clear, purple
Odour : characteristic

Flash point : 46 °C

pH : no data available
Odour Threshold : no data available
Melting point/freezing point : no data available
Initial boiling point and boiling : no data available

range

Evaporation rate : no data available
Flammability (solid, gas) : no data available
Upper explosion limit : no data available
Lower explosion limit : no data available
Vapour pressure : no data available
Relative vapour density : no data available

Relative density : 1.00 - 1.02

Solubility(ies)

Water solubility : soluble in cold water, soluble in hot water

Solubility in other solvents : no data available
Partition coefficient: n- : no data available

octanol/water

Auto-ignition temperature : no data available
Thermal decomposition : no data available
Viscosity, dynamic : no data available
Viscosity, kinematic : no data available
Explosive properties : no data available
Oxidizing properties : no data available

9.2 Other information

no data available

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

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition

products

: Depending on combustion properties, decomposition products

may include following materials:

Carbon oxides

nitrogen oxides (NOx)

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information on likely routes of

exposure

: Inhalation, Eye contact, Skin contact

Toxicity

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

Skin corrosion/irritation : There is no data available for this product.

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 : Isopropanol

LD50 rat: 5,840 mg/kg

Didecyl-Dimethyl-Ammonium chloride

LD50 rat: 329 mg/kg

Phenethyl Alcohol LD50 rat: 2,125 mg/kg

4-tert-butylcyclohexyl acetate LD50 rat: > 4,000 mg/kg

benzyl salicylate LD50 rat: 3,031 mg/kg

TRANS-3-PHENYL-2-PROPEN-1-OL

LD50 rat: 2,000 mg/kg

6-Octen-1-ol, 3,7-dimethyl-LD50 rat: 3,450 mg/kg

Components

Acute inhalation toxicity : Isopropanol

LC50 rat: > 30 mg/l Exposure time: 4 h Test atmosphere: vapour

Components

Acute dermal toxicity : Isopropanol

LD50 rabbit: 12,870 mg/kg

Didecyl-Dimethyl-Ammonium chloride

LD50 rabbit: 2,930 mg/kg

Phenethyl Alcohol

LD50 rabbit: 1,670.5 mg/kg 4-tert-butylcyclohexyl acetate LD50 rabbit: > 5,000 mg/kg

TRANS-3-PHENYL-2-PROPEN-1-OL

LD50 rat: > 5,000 mg/kg 6-Octen-1-ol, 3,7-dimethyl-LD50 rabbit: 2,650 mg/kg

Potential Health Effects

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.

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.

Further information : no data available

Section: 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Product

Environmental Effects : Harmful to aquatic life with long lasting effects.

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 : Isopropanol

96 h LC50 Pimephales promelas (fathead minnow):

9,640 mg/l

Didecyl-Dimethyl-Ammonium chloride

96 h LC50 Fish: 1 mg/l

Phenethyl Alcohol

96 h LC50 Fish: 215 mg/l

4-tert-butylcyclohexyl acetate 96 h LC50 Fish: 8.6 mg/l

benzyl salicylate 96 h LC50: 1.03 mg/l

TRANS-3-PHENYL-2-PROPEN-1-OL

96 h LC50 Fish: 43.9 mg/l

Components

Toxicity to daphnia and other : Isopropanol

aquatic invertebrates

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

Components

Toxicity to bacteria : Isopropanol

1,050 mg/l

12.2 Persistence and degradability

Product

no data available

Components

Biodegradability : C9-C11 Alkyl alcohol, ethoxylate

Result: Readily biodegradable.

Isopropanol

Result: Readily biodegradable.

Didecyl-Dimethyl-Ammonium chloride

Result: Eliminated from aquatic environment

Terpineol

80 %, Result: Readily biodegradable., Exposure time: 28 d,

OECD Test Guideline 310

Phenethyl Alcohol

Result: Readily biodegradable.

4-tert-butylcyclohexyl acetate

Result: Biodegradable

benzyl salicylate

Result: Readily biodegradable.

TRANS-3-PHENYL-2-PROPEN-1-OL

Result: Readily biodegradable.

6-Octen-1-ol, 3,7-dimethyl-Result: Readily biodegradable.

1,3-benzodioxole-5-carboxaldehyde 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.

12.6 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 : The product should not be allowed to enter drains, water

courses or the soil.

Where possible recycling is preferred to disposal or

incineration.

If recycling is not practicable, dispose of in compliance 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.

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

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: UN 1987

14.2 UN proper shipping name: ALCOHOL, N.O.S. (Isopropanol)

14.3 Transport hazard class(es): 3
14.4 Packing group: ||||
14.5 Environmental hazards: No

14.6 Special precautions for user: Not applicable.

Air transport (IATA)

14.1 UN number: UN 1987

14.2 UN proper shipping name: ALCOHOL, N.O.S. (Isopropanol)

14.3 Transport hazard class(es): 3
14.4 Packing group: III
14.5 Environmental hazards: No

14.6 Special precautions for user: Not applicable.

Sea transport (IMDG/IMO)

14.1 UN number: UN 1987

14.2 UN proper shipping name: ALCOHOL, N.O.S. (Isopropanol)

14.3 Transport hazard class(es): 3
14.4 Packing group: |||

14.5 Environmental hazards: No

14.6 Special precautions for user:
Not applicable.
Annex II of MARPOL 73/78 and the IBC

Code:

Section: 15. REGULATORY INFORMATION

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

INTERNATIONAL CHEMICAL CONTROL LAWS

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out on the product.

Section: 16. OTHER INFORMATION

Procedure used to derive the classification according to REGULATION (EC) No 1272/2008

Classification	Justification
Flammable liquids 3, H226	Based on product data or assessment
Skin irritation 2, H315	Calculation method
Serious eye damage 1, H318	Calculation method
Chronic aquatic toxicity 3, H412	Calculation method

Full text of H-Statements

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
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; AICS – Australian Inventory of Chemical Substances; 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; ECNumber – 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 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; TCSI – Taiwan Chemical Substance Inventory; TRGS – Technical Rule for Hazardous Substances; TSCA – Toxic Substances Control Act (United States); UN – United Nations; vPvB – Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Safety Data Sheet

: IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

The possible key literature references and data sources which may have been used in conjunction with the consideration of expert judgment to compile this Safety Data Sheet: European regulations/directives (including (EC) No. 1907/2006, (EC) No. 1272/2008), supplier data, inter-net, ESIS, IUCLID, ERIcards, Non European official regulatory data and other data sources.

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.