



SAFETY DATA SHEET

In compliance with EC Regulations No.: 1907/2006, 830/2015 and 1272/2008 (CLP).

Date last modified: 23 December 2019 - version 7.0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product Identifier

Product Name: MARICLEAN DG-25

Product Code#: 833032 (30 lt)/832132 (210 lt)

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

Intended Use: Industrial applications; Cleaning agent for machinery, equipment & cargo holds and tanks.

Uses advised against: This product is not recommended for any industrial, professional or consumer use other than the Intended Uses above and the instructions written in this Safety Data Sheet.

1.3 Details of the supplier of the safety data sheet

Company/undertaking identification

Supplier/Manufacturer:

Marichem Marigases Hellas SA
Sfaktirias 64,
185 45 Piraeus,
Greece

Tel. No.: ++30 210 4148800

Fax No.: ++30 210 4133985

<http://www.marichem-marigases.com>

e-mail: mail@marichem-marigases.com

1.4 Emergency telephone number

Tel. No.: ++30 210 4148800 (including working hours)

Emergency Information:

Inside U.S. and Canada: (800)-424-9300 (CHEMTREC)

Outside U.S. and Canada: 1-703-527-3887 (CHEMTREC)

National Emergency Centre (Greece): ++30 210 7793777

2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture

Classification under EC 1272/2008 regulation - GHS classification.

Skin Corrosion/Irritation: Category 2
Serious Eye Damage/Eye Irritation: Category 1
Acute Toxicity: Category 4

SIGNAL WORD: DANGER



Hazard Statement(s):

H302: Harmful if swallowed.
H315: Causes skin irritation.
H318: Causes serious eye damage.

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

The substance is classified and labelled according to the CLP Regulation.

Hazard Pictograms



GHS05 GHS07

Signal Word: DANGER

Hazard Statements

H302: Harmful if swallowed.
H315: Causes skin irritation.
H318: Causes serious eye damage.

Precautionary Statements

Prevention:

P262: Do not get in eyes, on skin or on clothing.
P264: Wash face, hands and any exposed skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

Storage:

P405: Store locked up.

Disposal:

P501: Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

Product classification and labelling according to Directive 67/548/EEC, European [Dangerous Preparations Directive](#) (1999/45/EC), European Regulation 648/2004 and their amendments.

Symbol: Xi, Irritant



(Xi) Irritant

R-phrases:	R38:	Irritating to skin.
	R41:	Risk of serious damage to eyes.
S-phrases:	S2:	Keep out of the reach of children.
	S26:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S39:	Wear eye/face protection.
	S46:	If swallowed, seek medical advice immediately and show container or label.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Composition:

Ingredients	CAS Number	Proportion	Classification*
3-Butoxypropan-2-ol	5131-66-8	10% - 30%	H315; H319.
Sulfonic acids, C1416 (even numbered) alkane hydroxy and C1416 (even numbered) alkene, sodium salts	684390-57-6	10% - 40%	H315; H318.
C10 Alcohol Ethoxylate	160875-66-1	1% - 20%	H302; H318.
Ingredients which do not contribute to the classification of the product	-	30% - 79%	-

*See section 16 for the full text of the Hazard Code(s) declared above.

Occupational Exposure Limits, if available, are listed in section 8.

4. FIRST AID MEASURES

4.1 Description of first aid measures

Protection of first-aiders

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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.

Inhalation

Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Eye contact

Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Ingestion

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: Causes serious eye damage.

Inhalation: May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.

Skin contact: Causes skin irritation.

Ingestion: May cause burns to mouth, throat and stomach.

Overexposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
pain

watering
redness.

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur.

Ingestion: Adverse symptoms may include the following:
stomach pains.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Appropriate extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
Inappropriate extinguishing media: None known.

5.2 Unusual fire hazards arising from the substance or mixture

Hazards from the substance or mixture: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous Combustion Products: Decomposition products may include the following materials:
Carbon Dioxide
Carbon Monoxide

5.3 Advise for fire-fighters

Special precautions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove

contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 5 to 40°C (41 to 104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations: Not available.

Industrial sector specific solutions: Not available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

Name of Substance: 3-Butoxypropan-2-ol

List	Type	Value
Dow IHG	TWA	50 ppm

Derived No Effect Level (DNEL)

Workers

Potential Health Effects	Possible route(s) of exposure:	Value
Acute - systemic effects	Skin Contact	no data available
Acute - systemic effects	Inhalation	no data available
Acute - local effects	Inhalation	50 %
Acute - local effects	Skin Contact	no data available
Long-term - systemic effects	Skin contact	44 mg/kg bw/day
Long-term - systemic effects	Inhalation	270.5 mg/m ³
Long-term - local effects	Skin contact	50 %
Long-term - local effects	Inhalation	no data available

Consumers

Potential Health Effects	Possible route(s) of exposure:	Value
Acute - systemic effects	Skin Contact	no data available
Acute - systemic effects	Inhalation	no data available
Acute - systemic effects	Ingestion	no data available
Acute - local effects	Inhalation	no data available
Acute - local effects	Skin Contact	50 %
Long-term - systemic	Skin contact	16 mg/kg bw/day

effects			
Long-term - systemic effects	Inhalation		33.8 mg/m ³
Long-term - systemic effects	Inhalation		8.75 mg/kg bw/day
Long-term - local effects	Skin contact		50 %
Long-term - local effects	Inhalation		no data available

Predicted No Effect Concentration (PNEC)

Compartment	Values
Fresh water	0.525 mg/l
Marine water	0.0525 mg/l
Intermittent releases	5.25 mg/l
STP	10 mg/l
Fresh water sediment	2.36 mg/kg d.w.
Marine sediment	0.236 mg/kg d.w.
Soil	0.16 mg/kg d.w.

Name of Substance: Sulfonic acids, C1416 (even numbered) alkane hydroxy and C14-16 (even numbered) alkene, sodium salts.

Europe: No exposure limit value known.
Germany: No exposure limit value known.
Spain: No exposure limit value known.

DNELs

Exposure	Value	Population	Effects
Long term Dermal	2158,33 mg/kg bw/day	Workers	Systemic
Long term Inhalation	152,22 mg/m ³	Workers	Systemic
Long term Dermal	1295 mg/kg bw/day	Consumers	Systemic
Long term Oral	12,95 mg/kg bw/day	Consumers	Systemic

PNECs

Compartment Detail	Value	Method Detail
Marine	0,0042 mg/l	Assessment Factors
Soil	0,0061 mg/kg	Equilibrium Partitioning
Marine water sediment	0,2025 mg/kg	Assessment Factors
Fresh water sediment	2,025 mg/kg	Equilibrium Partitioning
Fresh water	0,042 mg/l	Assessment Factors
Sewage Treatment Plant	4 mg/l	Assessment Factors

Name of Substance: C10 Alcohol Ethoxylate

No exposure limits have been established.

8.2 Exposure controls

Engineering measures: Use adequate local exhaust ventilation if airborne dusts, mists, or vapors will be generated.

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

Environmental exposure controls: No information available.

PERSONAL PROTECTIVE EQUIPMENT

Inhalation: Use ventilation, local exhaust or breathing protection.

Skin contact: Wear protective gloves and protective clothing.

Eye contact: Wear safety spectacles.

Ingestion: Do not eat, drink, or smoke during work.

Respiratory protection: In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

9.1.1. Appearance

Physical State:	Liquid
Color:	Pale/Yellow
Odor:	Ethereal odor

9.1.2. Basic data

Flash Point:	None
Vapour Pressure:	1.1 mbar (20 ⁰ C)
Relative vapor density (air=1):	Not available.
pH value:	12.0 – 13.0
Specific Gravity:	0.99 – 1.03 gr/cm ³ at 20 ⁰ C
Bulk Density (kg/m³):	Not available.
Viscosity:	10.9 cSt at 20 ⁰ C
Compatibility:	May attack Aluminium and Zinc when used in a high concentrated solution.

Solubility: Completely soluble in water.

9.2 Other Information: No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Chemical stability

Material is stable under normal conditions of use and storage.

10.2 Conditions to avoid

Avoid open flames, sparks, heating and high energy ignition sources.

10.3 Materials to avoid

Keep it away from strong oxidizing materials.

10.4 Hazardous Decomposition products

Material does not decompose at ambient temperatures.

Possible the formation of toxic Carbon Monoxide when no proper combustion takes place.

10.5 Hazardous polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

EXPOSURE LIMITS

Name of Substance: 3-Butoxypropan-2-ol

Acute Toxicity

Ingestion

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50, rat, male and female 3,300 mg/kg.

Aspiration hazard

Based on physical properties, not likely to be an aspiration hazard.

Dermal

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, rat, male and female > 2,000 mg/kg.

Inhalation

Brief exposure (minutes) is not likely to cause adverse effects. Based on the available data, respiratory irritation was not observed.

No deaths occurred at this concentration. LC50, 4 h, Vapor, rat > 3.5 mg/l.

Eye damage/eye irritation

May cause moderate eye irritation. May cause slight corneal injury. Effects are likely to heal readily. Vapor may cause eye irritation experienced as mild discomfort and redness.

Skin corrosion/irritation

Brief contact may cause moderate skin irritation with local redness.

Sensitization**Skin**

Did not cause allergic skin reactions when tested in guinea pigs.

Respiratory

No relevant data found.

Repeated Dose Toxicity

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Chronic Toxicity and Carcinogenicity

For similar material(s): Did not cause cancer in laboratory animals.

Developmental Toxicity

Did not cause birth defects or any other fetal effects in laboratory animals.

Reproductive Toxicity

For similar material(s): In animal studies, did not interfere with reproduction.

Genetic Toxicology

In vitro genetic toxicity studies were negative.

Name of Substance: Sulfonic acids, C1416 (even numbered) alkane hydroxy and C14-16 (even numbered) alkene, sodium salts.

Acute Toxicity

LD50 Dermal Rabbit 6300 to 13500 mg/kg.

LD50 Oral Rat 2079 mg/kg.

Acute Toxicity Estimates

Not Available.

Irritation/Corrosion

Irritating to skin. Causes serious eye damage.

Sensitiser

Skin - Guinea Pig: Not sensitizing.

Mutagenicity

OECD 471 Bacterial Reverse Mutation Test

Experiment: In vitro

Subject: Bacteria

Result: Negative

OECD 473 *In vitro* Mammalian Chromosomal Aberration Test

Experiment: In vitro

Subject: Mammalian Human

Result: Negative

Carcinogenicity

Not Available.

Reproductive Toxicity

Not Available.

Teratogenicity

Not Available.

Specific Target Organ Toxicity (single exposure)

Category 3 - Route of exposure: Not applicable. Target Organs: Respiratory tract irritation.

Name of Substance: C10 Alcohol Ethoxylate

Acute oral toxicity: LD50: > 2,000 - 5,000 mg/kg

Species: rat

The value is estimated from tests on similar products.

Acute inhalation toxicity: LC50: > 20 mg/l

Acute dermal toxicity: LD50: > 2,000 - 5,000 mg/kg

Skin irritation: No skin irritation

Eye irritation: Risk of serious damage to eyes.

Sensitisation: Not sensitizing.

Repeated dose toxicity: NOEL: 250 mg/kg

Germ cell mutagenicity

Genotoxicity in vitro: Negative

Genotoxicity in vivo: Negative

Target Organ Systemic Toxicant - Repeated exposure: NOEL: 250 mg/kg

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL DATA

12.1 Toxicity

Name of Substance: 3-Butoxypropan-2-ol

Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).

Fish Acute & Prolonged Toxicity

LC50, *Poecilia reticulata* (guppy), static test, 96 h: > 560 - 1,000 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, *Daphnia magna* (Water flea), static test, 48 h, immobilization: > 1,000 mg/l

Aquatic Plant Toxicity

EC50, *Pseudokirchneriella subcapitata* (green algae), static test, Growth inhibition (cell density reduction), 96 h: > 1,000 mg/l

NOEC, *Pseudokirchneriella subcapitata* (green algae), static test, Growth inhibition (cell density reduction), 96 h: 560 mg/l

Toxicity to Micro-organisms

EC50, activated sludge test (OECD 209), Respiration inhibition, 3 h: > 1,000 mg/l

Name of Substance: Sulfonic acids, C1416 (even numbered) alkane hydroxy and C14-16 (even numbered) alkene, sodium salts.

RESULT	SPECIES	EXPOSURE
Acute EC50 5,2 mg/l	Algae	72 hours
Acute EC50 4,53 mg/l	Daphnia	48 hours
Acute IC50 230 mg/l Static	Micro-organism	3 hours
Acute LC50 4,2 mg/l	Fish	96 hours
Chronic NOEC 6,7 mg/l	Daphnia	21 days semistatic

Name of Substance: C10 Alcohol Ethoxylate

Toxicity to fish: LC50: > 10 - 100 mg/l

Exposure time: 96 h

Species: *Oncorhynchus mykiss* (rainbow trout).

The value is estimated from tests on similar products.

Toxicity to daphnia and other aquatic invertebrates: EC50: > 10 - 100 mg/l

Exposure time: 48 h

Species: *Daphnia magna* (Water flea).

The value is estimated from tests on similar products.

Toxicity to algae: EC50: > 10 - 100 mg/l

Exposure time: 72 h

Species: *Scenedesmus subspicatus* (algae).

The value is estimated from tests on similar products.

12.2 Persistence and Degradability

Name of Substance: 3-Butoxypropan-2-ol

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

OECD Biodegradation Tests:	Exposure Time	Method	10 Day Window
Biodegradation 90 %	28 d	OECD 301E Test	pass

Name of Substance: Sulfonic acids, C1416 (even numbered) alkane hydroxy and C14-16 (even numbered) alkene, sodium salts.

OECD 306 Biodegradability in Seawater: > 90% - 28 days. Readily biodegradable.

Name of Substance: C10 Alcohol Ethoxylate

Degradation: Readily biodegradable. >60% BOD, 28 days, Closed Bottle Test (OECD 301D).

12.3 Bioaccumulative potential

Name of Substance: 3-Butoxypropan-2-ol

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient, n-octanol/water (log Pow): 1.2 Measured

Name of Substance: Sulfonic acids, C1416 (even numbered) alkane hydroxy and C14-16 (even numbered) alkene, sodium salts.

LogP_{ow}: 1,3

BCF: 70,8

Potential: low

Name of Substance: C10 Alcohol Ethoxylate

Bioaccumulation: Bioaccumulation is unlikely.

12.4 Mobility in soil

Name of Substance: 3-Butoxypropan-2-ol

Mobility in soil: Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient, soil organic carbon/water (Koc): 1.3 - 6.0 Estimated.

Henry's Law Constant (H): 3.86E-06 atm*m³/mole; 25 °C Estimated.

Name of Substance: Sulfonic acids, C1416 (even numbered) alkane hydroxy and C14-16 (even numbered) alkene, sodium salts.

Mobility: Not available.

Partition coefficient, soil organic carbon/water (Koc): Not available.

Name of Substance: C10 Alcohol Ethoxylate

Mobility: No data available.

12.5 Results of PBT and vPvB assessment

Name of Substance: 3-Butoxypropan-2-ol

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Name of Substance: Sulfonic acids, C1416 (even numbered) alkane hydroxy and C14-16 (even numbered) alkene, sodium salts.

Not applicable.

Name of Substance: C10 Alcohol Ethoxylate

This substance is not considered to be a PBT (Persistent, Bioaccumulation, Toxic).

This substance is not considered to be vPvB (very Persistent nor very Bioaccumulating).

12.6 Other adverse effects

Name of Substance: 3-Butoxypropan-2-ol

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

Name of Substance: Sulfonic acids, C1416 (even numbered) alkane hydroxy and C14-16 (even numbered) alkene, sodium salts.

No known significant effects or critical hazards.

Name of Substance: C10 Alcohol Ethoxylate

No data available.

The product is not harmful to the marine environment as per paragraphs 1.7.4 and 1.7.5. of Resolution MEPC. 219 (63) /Annex 24 - 2012 adoption of IMO's MARPOL Annex V.

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal

Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal .

Disposal recommendation: Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products .

Regulatory Disposal Information: European Waste Code: 08 XX XX

NOTE: These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code(s).

13.2 Disposal of contaminated packaging

Disposal recommendation: Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations.

DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

14. TRANSPORT INFORMATION

14.1 It is not classified as dangerous material for transportation according to ADR/RID, IMDG, US DOT & ICAO/IATA codes.

15. REGULATORY INFORMATION

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2 Chemical Safety Assessment

A CSA has been carried out for the raw materials in this product, from the raw materials manufacturers (when needed to be carried out).

16. OTHER INFORMATION

16.1 Full text of Hazard Code(s) referred in Section 3

H302: Harmful if swallowed.

H318: May be fatal if swallowed and enters airways.

H319: Causes serious eye irritation.

H315: Causes skin irritation.

16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organization.

bw: Body weight.

Carc.: Carcinogenicity.

CAS number: Chemical Abstracts Service number.

CLP: Classification Labelling Packaging Regulation.

CSA: Chemical Safety Assessment.

CSR: Chemical Safety Report.

DNEL: Derived No Effect Level.

dw: Dry weight.

EC number: EINECS and ELINCS number.

EC: European Commission.

EC50: Half maximal effective concentration.

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EmS: Emergency Schedule.

ERC: Environmental Release Category.

ES: Exposure scenario.

food: oral feed.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

Irrit.: Irritation.

LC50: Lethal concentration, 50 %.

LD50: Median Lethal dose.

LOAEC: Lowest Observed Adverse Effect Concentration.

LOAEL: Lowest Observed Adverse Effect Level.

MK value: Maximum Concentration value.
NCO: An international corporation that provides customer service contracting.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
OECD: Organisation for Economic Cooperation and Development.
PBT: Persistent, Bioaccumulative and Toxic.
PNEC: Predicted No Effect Concentration.
PROC: Process category.
REACH: The Registration, Evaluation, Authorisation and Restriction of Chemicals.
Resp.: Respiratory.
Sens.: Sensitization.
STEL value: Short Term Exposure Limit value.
STOT RE: Specific target organ toxicity — repeated exposure.
STOT SE: Specific target organ toxicity — single exposure.
STOT: Specific Target Organ Toxicity.
STP: Sewage Treatment Plant.
SU: Sector of use.
Tox.: Toxicity.
TWA value: Time Weighted Average value.
vPvB: Very Persistent and Very Bioaccumulative.

16.3 Notice to reader

All information, instructions and statements contained in this Material Safety Data Sheet are compiled in accordance with European Directives, corresponding national legislation and on the basis of information given by our suppliers.

The information disclosed in this Material Safety Data Sheet (which supersedes all previous versions) is believed to be correct, at the date of issue, to the best of our current knowledge and experience. It only relates to the specific product designated herein and it may not be valid when said product is used in combination with any other products or in any processed form, unless specified in the text. This document aims to provide the necessary health and safety information of the product and is not to be considered a warranty or quality specification. It is the responsibility of the recipient of this Material Safety Data Sheet to ensure that information given here is read and understood by all who use, handle, dispose of or in any way come in contact with the product.

Also, it is the responsibility of the user to comply with local legislation relating to safety, health, environment and waste management. Data and information provided concerning the product are informative, exclusively presented to the customer.