

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law Date of issue: 08/09/2022 Version: 1.0

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

#### 1.1. Product identifier

Product form : Article

AUTOMOTIVE & MOTORCYCLE DRY CHARGED LEAD BATTERY (NO ACID) Product name Automotive, High Performance MF, VRLA MF, YuMicron & Conventional Series Dry Product code

Charged Lead Battery (No Acid),

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

#### 1.2.1. Relevant identified uses

Use of the substance/mixture : Starting, ignition for car, truck & motorcycle's

1.2.2. Uses advised against

Restrictions on use : Anything other than the above

### 1.3. Details of the supplier of the safety data sheet

Only representative:

Europark Fichtenhain B 17

47807 Krefeld Germany

Telephone: +49 (0) 2151 82095 00 E-mail: info@gs-yuasa.de

Supplier:

GS Yuasa Battery Europe Limited Unit 22 Rassau Industrial Estate

Ebbw Vale, Gwent

Telephone: +44 (0) 1495 350121 E-mail: tech.info@gs-yuasa.uk

## 1.4. Emergency telephone number

Emergency number : United Kingdom

> GS Yuasa Battery Sales UK Ltd. Telephone: (+44) 01793-833-555 E-mail: info@gs-yuasa.uk Language: English language only

Monday - Friday 9:00am - 5:00pm (09:00 - 17:00)

# **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302 Acute Tox. 4 (Inhalation:dust,mist) H332 Skin Corr. 1 H314 Eve Dam. 1 H318 Carc. 2 H351 H360 Repr. 1A H362 Lact. STOT RE 1 H372 Aquatic Acute 1 H400 Aquatic Chronic 1 H410

Full text of hazard classes, H- and EUH-statements: see section 16

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### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

GHS05







GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : H302+H332 - Harmful if swallowed or if inhaled.

H314 - Causes severe skin burns and eye damage.

H351 - Suspected of causing cancer.

H360 - May damage fertility or the unborn child. H362 - May cause harm to breast-fed children.

H372 - Causes damage to organs through prolonged or repeated exposure.

H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.

P280 - Wear eye protection, face protection, protective gloves, protective clothing. P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

## 2.3. Other hazards

Other hazards which do not result in classification : Lead may be toxic to blood, kidneys, central nervous system.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

# **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Not applicable

# 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lead (Pb) substance listed as REACH Candidate (Lead) substance with a Community workplace exposure limit	CAS-No.: 7439-92-1 EC No.: 231-100-4 EC index No.: 082-013-00-1	70 – 90	Repr. 1A, H360FD Lact., H362 STOT RE 1, H372 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=10)
Lead dioxide	CAS-No.: 1309-60-0 EC No.: 215-174-5	30 – 45	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Inhalation:vapour), H332 Repr. 1A, H360 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
lead monoxide substance listed as REACH Candidate (Lead monoxide (lead oxide))	CAS-No.: 1317-36-8 EC No.: 215-267-0 EC index No.: 082-001-00-6	3 – 5	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Carc. 2, H351 Repr. 1A, H360 Lact., H362 STOT RE 1, H372 Aquatic Chronic 1, H410
Antimony (Sb)	CAS-No.: 7440-36-0 EC No.: 231-146-5	0.04 – 0.27	Repr. 1A, H360 Lact., H362 Aquatic Chronic 3, H412

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
Lead (Pb)	CAS-No.: 7439-92-1 EC No.: 231-100-4 EC index No.: 082-013-00-1	( 0.03 ≤C ≤ 100) Repr. 1A, H360D

Full text of H- and EUH-statements: see section 16

# **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Those administering first aid treatment should wear
First-aid measures after inhalation	suitable protective clothing to prevent exposure (See Section 8).  : If a battery ruptures, move to fresh air in case of accidental inhalation of mist. Remove
	person to fresh air and keep comfortable for breathing. If symptoms develop, obtain medical attention.
First-aid measures after skin contact	<ul> <li>Remove contaminated clothing immediately. Immediately call a POISON CENTRE or doctor/physician. Wash immediately with lots of water (15 minutes)/shower.</li> </ul>
First-aid measures after eye contact	: Rinse immediately with plenty of water (for at least 15 minutes). Ensure that folded skin of eyelids is thoroughly washed with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Give 100 - 200 ml of water to drink. Immediately call a POISON CENTRE or doctor/physician.

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

Symptoms/effects Symptoms/effects after inhalation	<ul><li>Causes damage to organs through prolonged or repeated exposure.</li><li>Harmful if inhaled. If a battery ruptures, may be harmful or fatal if inhaled in a confined area.</li></ul>
Symptoms/effects after skin contact	: Causes severe burns. Direct contact with internal components of a battery can be severely irritating to the skin and may result in redness, swelling, burns and severe skin damage.
Symptoms/effects after eye contact	: Causes serious eye damage. If a battery ruptures, direct contact with the liquid or exposure to vapours or mists may cause tearing, redness, swelling, corneal damage and irreversible eye damage.
Symptoms/effects after ingestion	: Harmful if swallowed.
Chronic symptoms	: May damage fertility. May damage the unborn child. May cause harm to breast-fed children. May cause cancer.

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

No additional information available

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## **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. If a battery ruptures, use dry

chemical, soda ash, lime, sand or carbon dioxide.

Unsuitable extinguishing media : None known.

# 5.2. Special hazards arising from the substance or mixture

Fire hazard : Lead compounds and sulfuric acid fume may be released during a fire involving the product.

Battery may rupture due to pressure buildup when exposed to excessive heat and may be

result in the release of corrosive materials.

Explosion hazard : Fire/explosion hazard. Reacts violently with water. Reacts violently with oxidizing

substances. Contact with metals could evolve flammable hydrogen gas.

Hazardous decomposition products in case of fire : May react with combustible substances creating fire or explosion hazard.

#### 5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling

exposed containers. Avoid fire-fighting water entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

#### **SECTION 6: Accidental release measures**

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

#### 6.1.1. For non-emergency personnel

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Ventilate area. Evacuate unnecessary personnel. Do not get in eyes, on skin, or on clothing.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and eye or face protection. Where excessive dust may

result, wear approved mask. Do not get in eyes, on skin, or on clothing. Do not breathe

dust.

Emergency procedures : Ventilate area. Do not get in eyes, on skin, or on clothing.

# 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if large amounts of the product enters sewers or public waters. Do not allow contact with water.

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

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Small spills: collect all released material in a plastic lined metal container. Take up liquid spill into absorbent material or Neutralize with sodium bicarbonate. Large spills: Take up

spill into absorbent material or Neutralize with sodium bicarbonate. Large spills: Take up liquid spill into absorbent material, e.g.: sand/earth. Dispose in a safe manner in accordance with local/national regulations.

with local/hational regulation

# 6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

## **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Avoid inhalation of vapours.

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Hygiene measures

: Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

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

Technical measures

: Take precautionary measures against static discharge. Provide local exhaust or general

room ventilation.

Storage conditions

Store in a dry, cool and well-ventilated place. Store away from direct sunlight or other heat

sources

Incompatible materials

: Strong bases. Strong acids.

# 7.3. Specific end use(s)

Starting, ignition for car, truck & motorcycle's.

# **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

Lead (Pb) (7439-92-1)		
EU - Binding Occupational Exposure Limit (BOEL)		
Local name	Inorganic lead and its compounds	
BOEL TWA	0.15 mg/m³	
Regulatory reference	DIRECTIVE (EU) 2022/431 (amending Directive 2004/37/EC)	
EU - Biological Limit Value (BLV)		
Local name	Lead and its inorganic compounds	
BLV	30 μg/100ml Parameter: Pb	
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs	
Arsenic (7440-38-2)		
United Kingdom - Occupational Exposure Limits		
Local name	Arsenic	
WEL TWA (mg/m³)	0.1 mg/m³ and arsenic compounds except arsine (as As)	
Remark (WEL)	Carc (Capable of causing cancer and/or heritable genetic damage)	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	

# 8.1.2. Recommended monitoring procedures

No additional information available

## 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

## 8.1.5. Control banding

No additional information available

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## 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Emergency safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate ventilation to minimise dust concentrations.

### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### 8.2.2.1. Eye and face protection

#### Eye protection:

Chemical goggles or safety glasses. (EN 166)

#### 8.2.2.2. Skin protection

#### Skin and body protection:

Impervious clothing. EN 13034. Large quantities: EN 14605. Corrosionproof suit

#### Hand protection:

Wear chemically resistant protective gloves according to EN 374-1. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves should be removed and replaced if there are any signs of degradation or breakthrough. Due to the practical application of the refractory products, it is advised to apply gloves according to EN 388 and EN 374-1.

#### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Wear a respirator conforming to EN140 with Type A/P2 filter or better

### 8.2.2.4. Thermal hazards

#### Thermal hazard protection:

Not required for normal conditions of use.

### 8.2.3. Environmental exposure controls

### **Environmental exposure controls:**

Avoid release to the environment. Do not allow to enter drains or water courses.

#### Other information:

Do not eat, drink or smoke during use. Handle in accordance with good industrial hygiene and safety procedures. Contaminated work clothing should not be allowed out of the workplace. Keep away from food, drink and animal feeding stuffs.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour

Boiling point : 1740 °C (Lead @ 013hPa)

Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available

Vapour pressure : 1.33 hPa (Lead @ 373 °C)

Relative vapour density at 20 °C : No data available Relative density : No data available Density : 11.34 g/m³ (Lead)

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Log Pow

Viscosity, kinematic

Viscosity, dynamic

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Solubility : Soluble in water.

Water: 100 %

: No data available

: No data available

: No data available

: No data available

Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available

### 9.2. Other information

No additional information available

# **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7).

## 10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

## 10.4. Conditions to avoid

Overcharging. Remove all sources of ignition. If battery ruptures, avoid contact with organic materials and alkaline materials. mechanical impacts.

## 10.5. Incompatible materials

Strong bases. Strong acids.

# 10.6. Hazardous decomposition products

Lead compounds and sulfuric acid fume may be released during a fire involving the product.

## **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Harmful if inhaled.

AUTOMOTIVE & MOTORCYCLE DRY CHARGED LEAD BATTERY (NO ACID)		
ATE CLP (oral)	1000 mg/kg bodyweight	
ATE CLP (dust,mist)	3 mg/l/4h	
Antimony (Sb) (7440-36-0)		
LD50 oral, rat	> 20000 mg/kg bodyweight	
LD50 dermal, rat	> 8300 mg/kg bodyweight	
LC50 inhalation, rat (mg/l)	5200 mg/m³ air	
Lead (Pb) (7439-92-1)		
LD50 oral, rat	> 2000 mg/kg bodyweight	
LD50 dermal, rat	> 2000 mg/kg bodyweight	

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Lead (Pb) (7439-92-1)	
LC50 inhalation, rat (mg/l)	> 5.05 mg/l (4 hours)
Skin corrosion/irritation	: Causes severe skin burns. pH: < 1 (Sulphuric acid)
Serious eye damage/irritation	: Causes serious eye damage. pH: < 1 (Sulphuric acid)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: May damage fertility or the unborn child. May cause harm to breast-fed children.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.
Lead (Pb) (7439-92-1)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Lead dioxide (1309-60-0)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
lead monoxide (1317-36-8)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified

# **SECTION 12: Ecological information**

## 12.1. Toxicity

Hazardous to the aquatic environment, short-term

(acute)

: Very toxic to aquatic life.

 $\label{thm:long-term} \mbox{Hazardous to the aquatic environment, long-term}$ 

(chronic)

: Very toxic to aquatic life with long lasting effects.

(CITIOTIC)	
Antimony (Sb) (7440-36-0)	
LC50 fish	14.4 mg/l - 96 Hours (Pimephales promelas)
EC50 - Other aquatic organisms [1]	NOEC: 1.11 mg/l - 96 Hours (Chlorohydra viridissimus)
NOEC chronic fish	4.5 mg/l - 21 days (Pimephales promelas)
NOEC chronic crustacea	1.74 mg/l - 21 days (Pimephales promelas)
Lead (Pb) (7439-92-1)	
LC50 fish	107 μg/l - 96 Hours (Oncorhynchus mykiss)
EC50 - Other aquatic organisms [1]	NOEC: 3.4 μg/L: 48 Hours (Mytilus trossolus)
NOEC chronic fish	29.3 μg/L - 30 days (Pimephales promelas)
NOEC chronic crustacea	153.8 μg/L - 25 days (Alona rectangula)
Lead dioxide (1309-60-0)	
EC50 Daphnia	2100 μg/l 96 Hours (Daphnia magna)
lead monoxide (1317-36-8)	
LC50 fish	1170 μg/l - 96 Hours (Oncorhynchus mykiss)
EC50 Daphnia	NOEC: ≥ 2,173.8 μg/L: 72 Hours (Dendraster excentricus)
EC50 72h - Algae [1]	35.9 μg/L - 48 Hours (Raphidocelis subcapitata)

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lead monoxide (1317-36-8)	
NOEC chronic fish	48 μg/L - 90 days (Salmo salar)
NOEC chronic crustacea	48.6 μg/L - 27 days (Alona rectangula)
NOEC chronic algae	192.3 μg/L - 25 days (Dunaliella tertiolecta)

# 12.2. Persistence and degradability

Antimony (Sb) (7440-36-0)	
Persistence and degradability Not relevant for inorganic substances.	
Lead (Pb) (7439-92-1)	
Persistence and degradability	Not relevant for inorganic substances.

## 12.3. Bioaccumulative potential

Antimony (Sb) (7440-36-0)		
Bioaccumulative potential	Not relevant for inorganic substances.	
Lead (Pb) (7439-92-1)		
Bioaccumulative potential	Not relevant for inorganic substances.	

## 12.4. Mobility in soil

No additional information available

# 12.5. Results of PBT and vPvB assessment

AUTOMOTIVE & MOTORCYCLE DRY CHARGED LEAD BATTERY (NO ACID)		
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII		
Component		
Lead (Pb) (7439-92-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
lead monoxide (1317-36-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

# 12.6. Other adverse effects

No additional information available

# **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment. Dispose in a safe manner in accordance with

local/national regulations.

European List of Waste (LoW) code : 16 06 01\* - lead batteries

# **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA

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### 14.1 UN number

UN-No. (ADR) : Not applicable UN-No. (IMDG) : Not applicable UN-No. (IATA) : Not applicable

## 14.2. UN proper shipping name

Proper Shipping Name : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

### 14.3. Transport hazard class(es)

**ADR** 

Transport hazard class(es) (ADR) : Not applicable

**IMDG** 

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

## 14.4. Packing group

Packing group : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

## 14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes

Other information : No supplementary information available

## 14.6. Special precautions for user

# Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

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

Not applicable

## **SECTION 15: Regulatory information**

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

## 15.1.1. EU-Regulations

**REACH Annex XVII (Restriction List)** 

Not applicable.

**REACH Annex XIV (Authorisation List)** 

Not applicable.

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### **REACH Candidate List (SVHC)**

Contains one substance (s) from the list of candidate substances of REACH: Lead (EC 231-100-4, CAS 7439-92-1), Lead monoxide (lead oxide) (EC 215-267-0, CAS 1317-36-8)

#### **PIC Regulation (Prior Informed Consent)**

Substances subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals: lead dioxide (1309-60-0), lead monoxide (1317-36-8)

#### **POP Regulation (Persistent Organic Pollutants)**

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

#### **Explosives Precursors Regulation (2019/1148)**

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

#### **Drug Precursors Regulation (273/2004)**

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

### 15.1.2. National regulations

No additional information available

# 15.2. Chemical safety assessment

No additional information available

# **SECTION 16: Other information**

Abbreviations and acronyms:		
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	
CAS-No.	Chemical Abstract Service number	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC No.	European Community number	
EC50	Median effective concentration	
ED	Endocrine disrupting properties	
EN	European Standard	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
IOELV	Indicative Occupational Exposure Limit Value	

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Abbreviations and acronyms:	
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information

: Classification procedure according to Regulation (EC) No. 1272/2008 [CLP]: Physical hazards: On basis of test data. Health hazards: Calculation method. Environmental hazards: Calculation method.

Full text of H- and EUH-statements:		
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4	
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3	
Carc. 2	Carcinogenicity, Category 2	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
H302	Harmful if swallowed.	
H314	Causes severe skin burns and eye damage.	
H318	Causes serious eye damage.	
H332	Harmful if inhaled.	
H351	Suspected of causing cancer.	
H360	May damage fertility or the unborn child.	

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Full text of H- and EUH-statements:	
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H362	May cause harm to breast-fed children.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Lact.	Reproductive toxicity, Additional category, Effects on or via lactation
Repr. 1A	Reproductive toxicity, Category 1A
Skin Corr. 1	Skin corrosion/irritation, Category 1
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

Safety Data Sheet (SDS), EU

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