

According to Regulation (EC) No 1907/2006  
Version 4 / Revision date: 10/12/2020  
Date of issue (version 4): 10/12/2020

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## Section 1: Identification of the mixture and of the company/undertaking

### 1.1. Product identifier:

Product name: Greenforce Lawn Weedkiller  
Product number: P40205 (1L) P40206 (500ml), G60232UK (250mls)

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

Controls all major lawn weeds.

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

Hygeia Chemicals Limited  
Carrowmoneash, Oranmore, County Galway  
Ireland  
Tel: 00353 91-794722  
Fax: 00353 91-794738

#### 1.3.1. Responsible person:

E-mail: [info@hygeia.ie](mailto:info@hygeia.ie)

### 1.4. Emergency telephone number:

National Poisons Information Centre (NPI)  
Tel: 353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)  
Healthcare Professionals: +353 (1) 809 2566 (24-hour service)  
UK - NHS 111

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## Section 2: Hazards identification

### 2.1. Classification of the mixture:

Classification according to Regulation (EC) No 1272/2008 (CLP):  
Not considered as hazardous mixture.

**Hazard statements:** No hazard statements.

### 2.2. Label elements:

**Hazard statements:** No hazard statements.

#### **Precautionary statements:**

P101 – If medical advice is needed, have product container or label at hand.  
P102 – Keep out of reach of children.  
P103 – Read carefully and follow all instructions.  
P261 – Avoid breathing mist.  
P501 – Dispose of contents/container in a safe way.

EUH 401 – To avoid risks to human health and the environment, comply with the instructions for use.

EUH 210 – Safety data sheet available on request.

### 2.3. Other hazards:

The product has no other known specific hazards for human or environment.

The ingredients of the product do not meet the criteria for PBT or vPvB substances.

### Section 3: Composition/information on ingredients

**3.1. Substances:**  
Not applicable.

**3.2. Mixtures:**

Description	CAS number	EC number / ECHA list number	REACH registration number	Conc. (%)	Classification according to Regulation (EC) No 1272/2008 (CLP)		
					Pictogram, signal word code(s)	Hazard class and category code(s)	Hazard statement code(s)
<b>(R) and (S)-2-(4-Chloro-2-methylphenoxy) propionic acid, potassium salt*</b>	66423-05-0	240-539-0	-	1-10	GHS05 GHS07 GHS09 Danger	Acute Tox. 4 Eye Dam. 1 Aquatic Chronic 2	H302 H318 H411
<b>3,6-Dichloro-2-methoxy benzoic acid**</b> Index number: 607-043-00-X	1918-00-9	217-635-6	-	0-5	GHS05 GHS07 GHS09 Danger	Acute Tox. 4 Acute Tox. 4 Eye Dam. 1 Aquatic Chronic 2	H302 H332 H318 H411
<b>Potassium hydroxide***</b> Index number: 019-002-00-8	1310-58-3	215-181-3	-	0-0.5	GHS05 GHS07 Danger	Acute Tox. 4 Skin Corr. 1A	H302 H314

\*: Classification specified by the manufacturer; the substance is not listed in Annex VI of the Regulation (EC) No 1272/2008.

\*\* : Classification specified by the manufacturer that includes other classification in addition to the classification specified by Regulation (EC) No 1272/2008.

\*\*\*: Substance having occupational exposure limit value.

Specific concentration limits:

**Potassium hydroxide** (CAS: 1310-58-3):

Skin Corr. 1A; H314:  $C \geq 5\%$

Skin Corr. 1B; H314:  $2\% \leq C < 5\%$

Skin Irrit. 2; H315:  $0,5\% \leq C < 2\%$

Eye Irrit. 2; H319:  $0,5\% \leq C < 2\%$

For the full text of hazard statements, see Section 16.

### Section 4: First aid measures

**4.1. Description of first aid measures:**

**Ingestion:**

Measures:

- If ingestion is suspected, do not induce vomiting.
- If conscious, give half a litre of water to drink.
- Obtain medical attention immediately (show this safety data sheet).

**Inhalation:**

Measures:

- Move to fresh air.
- If there is breathing difficulty or coughing, keep patient at rest seated in a comfortable position.
- Obtain medical attention immediately (show this safety data sheet).

**Skin contact:**

Measures:

- Remove contaminated clothing immediately.

- If skin contamination occurs wash immediately with plenty of clean, gently flowing water for at least 10 minutes.
  - Repeat skin decontamination process until all signs of chemicals have gone.
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## **Section 5: Firefighting measures**

### **5.1. Extinguishing media:**

#### **5.1.1. Suitable extinguishing media:**

Carbon dioxide, dry chemical, foam or water spray.

#### **5.1.2. Unsuitable extinguishing media:**

No data available.

### **5.2. Special hazards arising from the substance or mixture:**

In case of fire, toxic fumes and other combustion products may be formed; the inhalation of such combustion products can have serious adverse effects on health.

### **5.3. Advice for firefighters:**

Wear full protective clothing and self-contained breathing apparatus.

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## **Section 6: Accidental release measures**

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

#### **6.1.1. For non-emergency personnel:**

Allow only well-trained experts wearing suitable protective clothing to abide in the field of accident.

#### **6.1.2. For emergency responders:**

Wear appropriate protective clothing (see Section 8).

### **6.2. Environmental precautions:**

Dispose of the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

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

Soak up spilled product with inert absorbent material and place in suitable, labelled containers.

Dispose of collected product as hazardous waste.

### **6.4. Reference to other sections:**

For further and detailed information see Sections 8 and 13.

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## **Section 7: Handling and storage**

### **7.1. Precautions for safe handling:**

Observe conventional hygiene precautions.

Do not eat, drink or smoke during use.

Avoid direct contact with the product.

#### **Technical measures:**

No special measures required.

#### **Precautions against fire and explosion:**

No special measures required.

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

#### **Technical measures and storage condition:**

Keep containers tightly closed in a dry, cool and well-ventilated place.

Keep out of reach of children.

Keep away from food, drink and animal feedstuff.

**Incompatible materials:** See Section 10.5

**Packaging material:** No special prescriptions.

### **7.3. Specific end use(s):**

No specific instructions available.

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## **Section 8: Exposure controls/Personal protection**

### **8.1. Control parameters:**

**Occupational exposure limit values** (2020 Code of Practice for the Safety, Health and Welfare at Work):

**Potassium hydroxide** (CAS: 1310-58-3):

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15 minutes: 2 mg/m<sup>3</sup>

DNEL values		Oral exposure		Dermal exposure		Inhalative exposure	
		Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)
Consumer	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data
Worker	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data

PNEC values		
Compartment	Value	Note(s)
Freshwater	no data	no notes
Marine water	no data	no notes
Freshwater sediment	no data	no notes
Marine water sediment	no data	no notes
Sewage Treatment Plant (STP)	no data	no notes
Intermittent release	no data	no notes
Secondary poisoning	no data	no notes
Soil	no data	no notes

## 8.2. **Exposure controls:**

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

### 8.2.1. **Appropriate engineering controls:**

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.

### 8.2.2. **Individual protection measures, such as personal protective equipment:**

Observe the general safety measures when handling chemicals.

Do not eat, drink or smoke during use.

Provide emergency showers and eyewash facilities at the workplace.

The information regarding personal protective equipment is only for informative purposes. A complete risk assessment is required before the use of the product for the determination of the appropriate personal protective equipment, taking local circumstances into account.

1. **Eye/face protection:** Use appropriate protective eye protection/face protection (EN 166).

#### 2. **Skin protection:**

a. **Hand protection:** Use appropriate, chemical-resistant protective gloves (EN 374).

b. **Other:** Use appropriate protective clothing.

3. **Respiratory protection:** Use appropriate respiratory protective device.

### 8.2.3. **Environmental exposure controls:**

No specific prescription.

**The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions, an expert's advice is necessary before deciding upon further protective measures.**

## Section 9: Physical and chemical properties

### 9.1. **Information on basic physical and chemical properties:**

Parameter	Value / Test method / Remarks
1. <b>Appearance:</b>	<b>clear brown liquid</b>
2. <b>Odour:</b>	<b>slightly phenolic odour</b>
3. Odour threshold:	no data*
4. pH:	9.6-11.5
5. Melting point/freezing point:	not applicable; aqueous solution
6. Initial boiling point and boiling range:	no data*
7. Flash point:	no data*

8. Evaporation rate:	no data*
9. Flammability (solid, gas):	not applicable; aqueous solution
10. Upper/lower flammability or explosive limits:	no data*
11. Vapour pressure:	no data*
12. Vapour density:	no data*
13. Relative density:	no data*
14. Solubility(ies):	soluble in water
15. Partition coefficient: n-octanol/water:	(R) and (S)-2-(4-Chloro-2-methylphenoxy) propionic acid, potassium salt: -0.39 (pH 7) 3,6-Dichloro-2-methoxy benzoic acid: -1.9 (at 25 °C, pH 8.9)
16. Auto-ignition temperature:	no data*
17. Decomposition temperature:	no data*
18. Viscosity:	no data*
19. Explosive properties:	no data*
20. Oxidizing properties:	no data*

## 9.2. **Other information:**

Density: 1.022 g/ml (at 20 °C, typical)

\*: The manufacturer did not carry out any tests on this parameter for the product or the results of the tests are not available at the time of publication of the data sheet.

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## Section 10: Stability and reactivity

### 10.1. **Reactivity:**

No reactivity known.

### 10.2. **Chemical stability:**

Stable under recommended transport or storage conditions.

### 10.3. **Possibility of hazardous reactions:**

No dangerous reaction known.

### 10.4. **Conditions to avoid:**

Avoid direct heat and protect from frost.

### 10.5. **Incompatible materials:**

Strong acids, strong bases and oxidizing agents.

### 10.6. **Hazardous decomposition products:**

May generate toxic fumes of carbon dioxide and carbon monoxide.

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## Section 11: Toxicological information

### 11.1. **Information on toxicological effects:**

**Acute toxicity:** Based on available data, the classification criteria are not met.

**Skin corrosion/irritation:** Based on available data, the classification criteria are not met.

**Serious eye damage/irritation:** Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

**Carcinogenicity:** Based on available data, the classification criteria are not met.

**Reproductive toxicity:** Based on available data, the classification criteria are not met.

**STOT-single exposure:** Based on available data, the classification criteria are not met.

**STOT-repeated exposure:** Based on available data, the classification criteria are not met.

**Aspiration hazard:** Based on available data, the classification criteria are not met.

#### 11.1.1. **Summaries of the information derived from the test conducted:**

No data available.

#### 11.1.2. **Relevant toxicological properties:**

##### **Data about the ingredients:**

**(R) and (S)-2-(4-Chloro-2-methyl phenoxy) propionic acid, potassium salt (CAS: 66423-05-0):**

- Acute toxicity:

LD50 (oral, rat): 500-2000 mg/kg (harmful if swallowed)

LD50 (dermal, rat): > 2000 mg/kg

LC50 (inhalation, rat): > 5.4 mg/l

Skin Contact: There may be irritation and redness at the site of contact.

Eye Contact: There may be irritation and redness. The eyes may water profusely.  
Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: No symptoms

Delayed/Immediate Effects: Immediate effects can be expected after short-term exposure.

**3,6-Dichloro-2-methoxy benzoic acid** (CAS: 1918-00-9):

- Acute toxicity:

LD50 (oral, rat): 1581 mg/kg

LD50 (dermal, rat): > 2000 mg/kg

LC50 (inhalation, rat): 4.46 mg/l air/4h

- Skin corrosion/irritation:

Mildly irritating.

- Serious eye damage/irritation:

Severely irritating.

- Sensitisation:

Not skin sensitising.

- Mutagenicity:

Negative.

**Potassium hydroxide** (CAS: 1310-58-3):

- Acute toxicity:

LD50 (oral, rat): 273 mg/kg (strong caustic effect)

- Skin corrosion/irritation:

Strong caustic effect.

- Serious eye damage/irritation:

Strong caustic effect.

- Sensitisation:

No sensitizing effect known.

**11.1.3. Information on likely routes of exposure:**

Ingestion, inhalation, skin contact, eye contact.

**11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:**

No data available.

**11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:**

No data available.

**11.1.6. Interactive effects:**

No data available.

**11.1.7. Absence of specific data:**

No information.

**11.1.8. Other information:**

No data available.

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## Section 12: Ecological information

**12.1. Toxicity:**

Based on available data, the classification criteria are not met.

**Data about the ingredients:**

**3,6-Dichloro-2-methoxy benzoic acid** (CAS: 1918-00-9):

LC50 (Oncorhynchus mykiss): 135.4 mg/l/96h

EC50 (Daphnia magna): 110.7 mg/l/48h

EbC50 (Anabaena flos-aquae): 43.1 mg/l/72h

ErC50 (Anabaena flos-aquae): 44.9 mg/l/72h

NOEC (Lemna gibbis): 0.25 mg/l/14d

IC50 (activated sludge): > 500 mg/l/3h

**Potassium hydroxide** (CAS: 1310-58-3):

LC50 (Gambusia affinis): 80 mg/l/96h

**(R) and (S)-2-(4-Chloro-2-methyl phenoxy) propionic acid, potassium salt** (CAS: 66423-05-0), 600 g/l Al:

NOEC (Daphnia magna): 22.2 mg/l (MCP-p)

ErC50 (Lemna minor): 1.6 mg/l/72 or 96h (MCP-p)

ErC50 (Pseudokirchneriella subcapitata): 16.2 mg/l/72 or 96h (MCP-p)

LC50 (Oncorhynchus mykiss): > 100 mg/l/96h (MCP-p)

NOEC (Oncorhynchus mykiss): > 50 mg/l (MCP-p)

- EC50 (Daphnia magna): > 91 mg/l/48h (MCP-p)  
EC50 (Lemna gibba): 1.6 mg/l/14d
- 12.2. Persistence and degradability:**  
No data available about the mixture.  
**Data about the ingredients:**  
**3,6-Dichloro-2-methoxy benzoic acid** (CAS: S1918-00-9):  
Biodegradability:  
Not readily biodegradable.  
Stability in water:  
Degradation half-life: 35-46 days; not persistent in water.  
Stability in soil:  
Degradation half-life: 1.4-11 days; not persistent in soil.  
**Potassium hydroxide** (CAS: 1310-58-3):  
Methods for the determination of biodegradability are not applicable to inorganic substances.  
**(R) and (S)-2-(4-Chloro-2-methyl phenoxy) propionic acid, potassium salt** (CAS: 66423-05-0), 600 g/l AI:  
Rapidly biodegradable.
- 12.3. Bioaccumulation potential:**  
No data available about the mixture.  
**Data about the ingredients:**  
**3,6-Dichloro-2-methoxy benzoic acid** (CAS: S1918-00-9):  
Dicamba has low potential for bioaccumulation.  
**Potassium hydroxide** (CAS: 1310-58-3):  
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.  
**(R) and (S)-2-(4-Chloro-2-methyl phenoxy) propionic acid, potassium salt** (CAS: 66423-05-0), 600 g/l AI:  
Potential for bioaccumulation is low based on log Pow.
- 12.4. Mobility in soil:**  
No data available about the mixture.  
**Data about the ingredients:**  
**3,6-Dichloro-2-methoxy benzoic acid** (CAS: S1918-00-9):  
Dicamba has very high mobility in soil.  
**(R) and (S)-2-(4-Chloro-2-methyl phenoxy) propionic acid, potassium salt** (CAS: 66423-05-0), 600 g/l AI:  
Fairly mobile but rapidly degraded in aerobic soils.
- 12.5. Results of PBT and vPvB assessment:**  
The ingredients of the product do not meet the criteria for PBT or vPvB substances.
- 12.6. Other adverse effects:**  
Water hazard class 1 (German Regulation) (Assessment by list): Slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralized.

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## Section 13: Disposal considerations

- 13.1. Waste treatment methods:**  
Disposal according to the local regulations.
- 13.1.1. Information regarding the disposal of the product:**  
Dispose of according to local and national regulations.
- 13.1.2. Information regarding the disposal of the packaging:**  
Triple rinse containers with water and dispose of according to local and national regulations
- 13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:**  
No data available.
- 13.1.4. Sewage disposal:**  
No data available.
- 13.1.5. Special precautions for any recommended waste treatment:**  
No data available.

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## Section 14: Transport information

**ADR: Not subject to the conventions of carriage of dangerous goods.**

- 14.1. **UN Number:**  
No UN Number.
- 14.2. **UN proper shipping name:**  
No proper shipping name.
- 14.3. **Transport hazard class(es):**  
No transport hazard classes.
- 14.4. **Packing group:**  
No packing group.
- 14.5. **Environmental hazards:**  
No relevant information available.
- 14.6. **Special precautions for user:**  
No relevant information available.
- 14.7. **Transport in bulk according to Annex II of MARPOL and the IBC Code:**  
Not applicable.

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## Section 15: Regulatory information

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

**REGULATION (EC) No 1907/2006** OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive (EC) No 1999/45 and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive (EEC) No 76/769 and Commission Directives (EEC) No 91/155, (EEC) No 93/67, (EC) No 93/105 and (EC) No 2000/21

**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 (EEC) No 67/548 and (EC) No 1999/45, and amending Regulation (EC) No 1907/2006

**COMMISSION REGULATION (EU) No 2015/830** of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

15.2. **Chemical safety assessment:** No information.

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## Section 16: Other information

**Information regarding the revision of the safety data sheet:**

The safety data sheet has been revised according to Regulation (EU) 2015/830 (Section 1-16). The composition and hazard classification of the mixture did not change compared to the previous version.

This safety data sheet supersedes all previous versions according to Annex II of Regulation (EC) No 1907/2006.

**Literature references / data sources:**

Previous version of the safety data sheet (08. 01. 2020, version 2).

**Methods used for the classification according to Regulation (EC) No 1272/2008:**

The classification of the product has been given by the manufacturer who knows the exact composition of the product.  
In Section 3 the weight percentages are given in ranges because of the confident nature of the exact composition.

**Relevant hazard statements (code and full text) of Sections 2 and 3:**

H302 – Harmful if swallowed.  
H314 – Causes severe skin burns and eye damage.



H315 – Causes skin irritation.  
H318 – Causes serious eye damage.  
H319 – Causes serious eye irritation.  
H332 – Harmful if inhaled.  
H411 – Toxic to aquatic life with long lasting effects.

**Training advice:** No data available.

**Full text of the abbreviations in the safety data sheet:**

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.  
ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road.  
ATE: Acute Toxicity Estimate.  
AOX: Adsorbable organic halides.  
BCF: Bioconcentration factor.  
BOD: Biological Oxygen Demand.  
CAS number: Chemical Abstract Service number.  
CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.  
CMR effects: Carcinogenic, mutagenic, reprotoxic effects.  
COD: Chemical Oxygen Demand.  
CSA: Chemical Safety Assessment.  
CSR: Chemical Safety Report.  
DNEL: Derived-No-Effect-Level.  
ECHA: European Chemical Agency.  
EC: European Community.  
EC number: EINECS and ELINCS numbers (see also EINECS and ELINCS).  
EEC: European Economic Community.  
EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
ELINCS: European List of Notified Chemical Substances.  
EN: European Norm.  
EU: European Union.  
EWC: European Waste Catalogue (replaced by LoW – see below).  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.  
IATA: International Air Transport Association.  
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.  
IMDG: International Maritime Dangerous Goods.  
IMSBC: International Maritime Solid Bulk Cargoes.  
IUCLID: International Uniform Chemical Information Database.  
IUPAC: International Union of Pure and Applied Chemistry.  
Kow: n-Octanol - Water Partition Coefficient.  
LC50: Lethal concentration resulting in 50 % mortality.  
LD50: Lethal dose resulting in 50 % mortality (median lethal dose).  
LoW: List of Waste.  
LOEC: Lowest Observed Effect Concentration.  
LOEL: Lowest Observed Effect Level.  
NOEC: No Observed Effect Concentration.  
NOEL: No Observed Effect Level.  
NOAEC: No Observed Adverse Effect Concentration.  
NOAEL: No Observed Adverse Effect Level.  
OECD: Organization for Economic Cooperation and Development.  
OSHA: Occupational Safety and Health Administration.  
PBT: Persistent, Bioaccumulative and Toxic.  
PNEC: Predicted No Effect Concentration.  
QSAR: Quantitative Structure Activity Relationship.  
REACH: Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.  
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.  
SCBA: Self Contained Breathing Apparatus.  
SDS: Safety Data Sheet.  
STOT: Specific Target Organ Toxicity.

SVHC: Substances of Very High Concern.

UN: United Nations.

UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.

VOC: Volatile Organic Compound.

vPvB: very Persistent and very Bioaccumulative.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information.

The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product.

It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.