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

1.1. Product identifier

Dichlormethan

Further trade names

Methylene Chloride
Dichloromethane (stabilized with 2-Methyl-2-butene)
Dichloromethane stabilized with amylene
DCM
Methylene bichloride

Abbreviation:	DCM
REACH Registration Number:	01-2119480404-41-XXXX
CAS No:	75-09-2
EC No:	200-838-9

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

Use of the substance/mixture

Laboratory chemical, Manufacture of the substance
Solvent

Uses advised against

Do not use for private purposes (household).
Restrictions on use: Pharmaceutical substance

1.3. Details of the supplier of the safety data sheet

Company name:	Iris Biotech GmbH		
Street:	Adalbert-Zoellner-Straße 1		
Place:	D-95615 Marktredwitz, Germany		
Post-office box:	568 D-95605 Marktredwitz, Germany		
Telephone:	+49 9231 97121 0	Telefax:	+49 9231 97121 99
e-mail:	info@iris-biotech.de		
Contact person:	Compliance Department	Telephone:	+49 9231 97121 0
e-mail:	sds@iris-biotech.de		
Internet:	www.iris-biotech.de		
Responsible Department:	Only available during office hours.		

1.4. Emergency telephone number:

+49 (0)89 19240 (POISON CENTER Munich: 24 h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Carc. 2; H351
Skin Irrit. 2; H315
Eye Irrit. 2; H319
STOT SE 3; H335
STOT SE 3; H336
STOT RE 2; H373

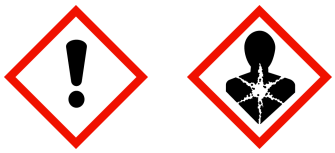
Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Signal word: Warning

Pictograms:



Hazard statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of 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.
P308+P313	IF exposed or concerned: Get medical advice/attention.

Additional advice on labelling

Warning - substance not yet tested completely.

2.3. Other hazards

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.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

Dichloromethane

Sum formula: CH_2Cl_2

Molecular weight: 84,93 g/mol

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
75-09-2	Dichloromethane, methylene chloride			<= 100 %
	200-838-9		01-2119480404-41-XXXX	
	Carc. 2, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT SE 3, STOT RE 2; H351 H315 H319 H335 H336 H373			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
75-09-2	200-838-9	Dichloromethane, methylene chloride	<= 100 % %
	inhalation: LC50 = 52000 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
In all cases of doubt, or when symptoms persist, seek medical advice.

After inhalation

Provide fresh air. Medical treatment necessary. Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.
In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Observe risk of aspiration if vomiting occurs. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Rinse mouth thoroughly with water.
Never give anything by mouth to an unconscious person or a person with cramps.
In all cases of doubt, or when symptoms persist, seek medical advice.

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

Refer to chapter 11.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. Water spray. alcohol resistant foam. Dry extinguishing powder. Carbon dioxide (CO2). Sand.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable. Thermal decomposition can lead to the escape of irritating gases and vapours.
In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide (CO). Hydrogen chloride (HCl). Phosgene

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Full protection suit.

Cool closed containers exposed to fire with water spray.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Usual measures for fire prevention.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Provide adequate ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray.
Avoid contact with skin, eyes and clothes.
Wear personal protection equipment.
In case of fire: Evacuate area.

For non-emergency personnel

Evacuate the danger area, observe emergency procedures, consult an expert.

Stop and contain spill/release if it can be done safely. Cover drains.
Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

For emergency responders

Cover drains.
Stop and contain spill/release if it can be done safely.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil.
Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.
Stop and contain spill/release if it can be done safely.

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Other information

Take up mechanically, placing in appropriate containers for disposal.
Soak up inert absorbent and dispose as waste requiring special attention.
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13 Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Use extractor hood (laboratory).
Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation.
The substance should only be handled in closed apparatus or systems.
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.
Protective respiration apparatus not using surrounding air (breathing apparatus) (DIN EN 133).
Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Non-combustible liquids
Usual measures for fire prevention.
Keep respiratory protective device available.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Provide adequate ventilation.

Further information on handling

Suitable container/equipment material: Refined steel
Only use containers specifically approved for the substance/product.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only.
Provide adequate ventilation as well as local exhaustion at critical locations. Keep container tightly closed in a cool, well-ventilated place.
Containers which are opened carefully and kept upright to prevent leakage.
Keep in a cool place.
storage temperature: room temperature

Hints on joint storage

No special measures are necessary.

Further information on storage conditions

Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Thermal sensitivity

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

CAS No	Name of agent	ppm	mg/m³	fib/cm³	Category	Origin
75-09-2	Methylene chloride; Dichloromethane	100 200	353 706		TWA (8 h) STEL (15 min)	

DNEL/DMEL values

CAS No	Name of agent		
DNEL type	Exposure route	Effect	Value
75-09-2	Dichloromethane, methylene chloride		
Worker DNEL, long-term	inhalation	systemic	176 mg/m³
Worker DNEL, long-term	dermal	systemic	12 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	44 mg/m³
Consumer DNEL, long-term	dermal	systemic	5,82 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,06 mg/kg bw/day

PNEC values

CAS No	Name of agent	
Environmental compartment		Value
75-09-2	Dichloromethane, methylene chloride	
Freshwater		0,31 mg/l
Freshwater (intermittent releases)		0,27 mg/l
Marine water		0,031 mg/l
Freshwater sediment		2,57 mg/kg
Marine sediment		0,26 mg/kg
Micro-organisms in sewage treatment plants (STP)		26 mg/l
Soil		0,33 mg/kg

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection.
Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Wear suitable gloves.

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Splash contact: Suitable material: FKM (fluoro rubber): Min.: 0,7 mm

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH

(US) or CEN (EU).

Environmental exposure controls

Do not empty into drains; dispose of this material and its container in a safe way.
Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	Chlorine
Odour threshold:	250 ppm

		Test method
Changes in the physical state		
Melting point/freezing point:	-97 °C °C	
Boiling point or initial boiling point and boiling range:	40 °C	
Sublimation point:	No data available	
Softening point:	not determined	
Pour point:	not determined	
Flash point:	not applicable	
Flammability		
Solid/liquid:	not applicable	
Gas:	not applicable	
Explosive properties		
Explosion group: IIA Maximum explosion pressure (Pmax): 5,9 bar Minimum ignition energy (MIE): 9300 mJ Source: CHEMpendium; Canadian Center for Occupational Health and Safety		
Lower explosion limits:	13 vol. %	
Upper explosion limits:	22 vol. %	
Auto-ignition temperature:	605 °C	DIN 51794
Self-ignition temperature		
Solid:	No data available	
Gas:	No data available	
Decomposition temperature:	No data available	
pH-Value:	No data available	
Viscosity / dynamic: (at 20 °C)	0,43 mPa·s	
Viscosity / kinematic:	No data available	
Flow time:	No data available	
Water solubility: (at 20 °C)	20 g/L	
Solubility in other solvents		
miscible with most organic solvents		
Dissolution rate:	not determined	

Partition coefficient n-octanol/water:	log Pow: 1,25 (20 °C)	Significant bioaccumulation potential is expected (log Pow> 3).
Dispersion stability:	No data available	
Vapour pressure: (at 20 °C)	470 hPa	
Vapour pressure: (at 50 °C)	584 hPa	
Density:	1,33 g/cm³	
Relative density:	2,93	
Bulk density:	not applicable	
Relative vapour density:	No data available	

9.2. Other information

Information with regard to physical hazard classes

Sustaining combustion: No data available

Oxidizing properties

No data available

Other safety characteristics

Solvent separation test:	No data available
Solvent content:	100,00 %
Evaporation rate:	No data available

Further Information

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.
Contains as stabilizer(s): Amylene (20 - 60 ppm)

10.3. Possibility of hazardous reactions

Risk of explosion with:
Alkali metals.
Aluminium (Powder)
Nitrogen oxides (NOx).
Potassium.
NaN3
Nitric acid
AlCl3
amines. (HNO3).
Oxygen (liquefied gas)

Exothermic reaction with:
Alkaline earth metals.
Powdered metals

10.4. Conditions to avoid

Keep away from heat. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

10.5. Incompatible materials

Oxidizing agents, strong.
Base. Acids

Rubber.
plastic
Light metals
metals
Steel

10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours.
In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide (CO). Hydrogen chloride (HCl).
Phosgene

Further information

In case of fire: See chapter 5.

SECTION 11: Toxicological information

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

Toxicocinetics, metabolism and distribution

No data available

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
75-09-2	Dichloromethane, methylene chloride				
	oral	LD50 > 2000 mg/kg	Rat	Other company data (1988)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Other company data (1988)	OECD Guideline 402
	inhalation vapour	LC50 52000 mg/l	Rat		

Irritation and corrosivity

Causes skin irritation.
Causes serious eye irritation.
Skin contact - Rabbit.
Result: Causes skin irritation. - 4 h
OECD 404
Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

Eye contact - Rabbit.
Result: - Causes eye irritation.
Note: ECHA
Corneal opacity.

Sensitising effects

Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation
Local lymph node assay (LLNA) - Mouse.
Result: negative
OECD 429

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer. (Dichloromethane, methylene chloride)
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
Germ cell mutagenicity:
Mutagenicity (mammalian cell test): Chromosomal aberrations mammalian cells
Chinese hamster ovary cells
Result: positive (with metabolic activation), positive (without metabolic activation)
OECD 473

Ames test
Salmonella typhimurium
Result: positive (with metabolic activation), positive (without metabolic activation)
OECD 471 (Ames test)

Carcinogenicity Suspected of causing cancer.

STOT-single exposure

May cause respiratory irritation. (Dichloromethane, methylene chloride)
May cause drowsiness or dizziness. (Dichloromethane, methylene chloride)

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Dichloromethane, methylene chloride)

Aspiration hazard

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

Information on likely routes of exposure

Inhalation, The product is skin resorptive.

Specific effects in experiment on an animal

Rat: DNA damage

Practical experience

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

Dichloromethane is metabolized in the body producing carbon monoxide which increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen - carrying capacity of the blood., Acts as a simple asphyxiant by displacing air, anesthetic effects, Difficulty in breathing, Headache, Dizziness, Prolonged or repeated contact with skin may cause: defatting, Dermatitis, Contact with eyes can cause: Redness, Blurred vision, Provokes tears., Effects due to ingestion may include:, Gastrointestinal discomfort, Central nervous system depression, Paresthesia, Drowsiness, Convulsions, Conjunctivitis, Pulmonary oedema. Effects may be delayed. Irregular breathing, Stomach/intestinal disorders, Nausea, Vomiting, Increased liver enzymes, Weakness. Heavy or prolonged skin exposure may result in the absorption of harmful amounts of material abdominal pain. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

General information halogenated hydrocarbons: Systemic effects: Anaesthetic state, Circulatory collapse, Liver and kidney damage.

Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated. Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.
Special hazards arising from the substance or mixture!

RTECS: PA8050000

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
75-09-2	Dichloromethane, methylene chloride						
	Acute fish toxicity	LC50	193 mg/l	96 h	Pimephales promelas	Bull Environ Contam Toxicol 20, 344-352	According to test methods described by t
	Acute crustacea toxicity	EC50	27 mg/l	48 h	Daphnia magna	Study report (1979)	According EPA publication
	Fish toxicity	NOEC	357 mg/l	8 d	Pimephales promelas	Publication (1987)	other: ASTM E729-80

12.2. Persistence and degradability

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
75-09-2	Dichloromethane, methylene chloride			
	OECD 301C/ ISO 9408/ EEC 92/69/V, C.4-F	< 26 %		
	Not readily biodegradable (according to OECD criteria)			

12.3. Bioaccumulative potential

Remarks: Does not bioaccumulate.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
75-09-2	Dichloromethane, methylene chloride	1,25

BCF

CAS No	Chemical name	BCF	Species	Source
75-09-2	Dichloromethane, methylene chloride	39	Cyprinus carpio	Study report (1986)

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.
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. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation. Dispose of waste according to applicable legislation.
Consult the appropriate local waste disposal expert about waste disposal.

Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 1593
14.2. UN proper shipping name:	DICHLOROMETHANE
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Classification code:	T1
Special Provisions:	516
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	2
Hazard No:	60
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 1593
14.2. UN proper shipping name:	DICHLOROMETHANE
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Classification code:	T1
Special Provisions:	516 802
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1593
14.2. UN proper shipping name:	DICHLOROMETHANE
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Special Provisions:	-
Limited quantity:	5 L

Excepted quantity:	E1
EmS:	F-A, S-A

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1593
14.2. UN proper shipping name:	DICHLOROMETHANE
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Limited quantity Passenger:	2 L
Passenger LQ:	Y642
Excepted quantity:	E1
IATA-packing instructions - Passenger:	655
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	663
IATA-max. quantity - Cargo:	220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No data available

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 59, Entry 75

2010/75/EU (VOC):	100 % (1330 g/l)
2004/42/EC (VOC):	100 % (1330 g/l)
Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	2 - obviously hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.