

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/31/2022

Version 4

Reviewed on 03/31/2022

1 Identification

- **Product identifier**
- **Trade name: GC11B**
- **Article number:** 3350100004B
- **Application of the substance / the mixture** Adhesives
- **Details of the supplier of the safety data sheet**
- **Supplier:**
Alfa Laval Technologies AB
SE-221 00 Lund
Sweden
+46 46 36 65 00
info.se@alfalaval.com
- **Information department:**
For additional questions regarding safety data sheets please contact your local Alfa Laval Sales Company which you find on www.alfalaval.com or in safety data sheet under section 16: Other Informaion
- **Emergency telephone number:**
Call CHEMTREC
+1 703-741-5970 / 1-800-424-9300 CCN 844

2 Hazard(s) identification

- **Classification of the substance or mixture**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

- **Signal word** Warning
- **Hazard-determining components of labeling:**
bis[4-(2,3-epoxypropoxy)phenyl]propane
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane
- **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
- **Precautionary statements**
P273 Avoid release to the environment.
P280 Wear protective gloves.
P302+P352 If on skin: Wash with plenty of water.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P362+P364 Take off contaminated clothing and wash it before reuse.

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- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P321 Specific treatment (see on this label).
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P363 Wash contaminated clothing before reuse.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** The product is not, nor contains, a substance that is PBT
- **vPvB:** The product is not, nor contains a substance that is, vPvB.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:**

CAS: 60676-86-0	Silica, fused	10-30%
CAS: 7631-86-9	silicon dioxide, chemically prepared	1-5%
CAS: 65997-17-3	Fibrous Glass	1-5%

- **Dangerous components:**

CAS: 9003-36-5	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol Acute Tox. 4, H332; Skin Irrit. 2, H315; Skin Sens. 1, H317	<30%
CAS: 1675-54-3	bis[4-(2,3-epoxypropoxy)phenyl]propane Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	10-30%
CAS: 14228-73-0	1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317	1-10%
CAS: 2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane Eye Dam. 1, H318	<3%

4 First-aid measures

- **Description of first aid measures**
- **General information:** Wash contaminated clothing before reuse.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse cautiously with water for 20 minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Get medical advice/attention.
- **After swallowing:**
Wash the mouth with water.
Do not induce vomiting; immediately call for medical help.

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- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
Treat symptomatically

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Use fire fighting measures that suit the environment.
Water
Foam
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Aldehyde
Hydrogen chloride (HCl)
Carbon monoxide (CO)
Carbon dioxide
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Do not breathe vapour.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

CAS: 1675-54-3	bis[4-(2,3-epoxypropoxy)phenyl]propane	39 mg/m ³
CAS: 7631-86-9	silicon dioxide, chemically prepared	18 mg/m ³
CAS: 65997-17-3	Fibrous Glass	15 mg/m ³
CAS: 2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	9.3 mg/m ³
CAS: 67762-90-7	Dimethyl siloxane, reaction product with silicon oxide	120 mg/m ³

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· PAC-2:		
CAS: 1675-54-3	bis[4-(2,3-epoxypropoxy)phenyl]propane	430 mg/m ³
CAS: 7631-86-9	silicon dioxide, chemically prepared	740 mg/m ³
CAS: 65997-17-3	Fibrous Glass	170 mg/m ³
CAS: 2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	100 mg/m ³
CAS: 67762-90-7	Dimethyl siloxane, reaction product with silicon oxide	1,300 mg/m ³
· PAC-3:		
CAS: 1675-54-3	bis[4-(2,3-epoxypropoxy)phenyl]propane	2,600 mg/m ³
CAS: 7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m ³
CAS: 65997-17-3	Fibrous Glass	990 mg/m ³
CAS: 2530-83-8	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	230 mg/m ³
CAS: 67762-90-7	Dimethyl siloxane, reaction product with silicon oxide	7,900 mg/m ³

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Eye wash bottle or emergency eye wash fountain must be found in the work place

Ensure adequate ventilation

Do not breathe vapour.

When using do not eat, drink or smoke.

See Section 8 for information on personal protection equipment.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** Keep receptacle tightly sealed.

- **Information about storage in one common storage facility:**

Do not store together with alkalis (caustic solutions).

Do not store together with acids.

Store away from oxidizing agents.

Reacts with amines.

- **Further information about storage conditions:** Protect from heat and direct sunlight.

- **Specific end use(s)**

Adhesives

Professional use only.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** Use only in well-ventilated areas.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

CAS: 60676-86-0 Silica, fused	
PEL	20mppcf or 80mg/m ³ /%SiO ₂

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TLV	TLV withdrawn
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Ensure that washing facilities are available at the work place.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes and skin.
- **Breathing equipment:** In case of insufficient ventilation, wear suitable respiratory equipment.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
 Polymere laminate
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

- **Body protection:**



Protective work clothing

- **Limitation and supervision of exposure into the environment**
 Do not allow to enter sewers/ surface or ground water.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 Form: Pasty

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· Color:	Grey
· Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Not applicable. Undetermined.
· Flash point:	≥100 °C (≥212 °F)
· Flammability (solid, gaseous):	Not determined.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties	Not applicable.
· Vapor pressure:	Not applicable.
· Density at 20 °C (68 °F):	1.3-1.4 g/cm ³ (10.8485-11.683 lbs/gal)
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Not determined.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic at 20 °C (68 °F):	400-800 mPas
Kinematic:	Not applicable.
· Solvent content:	
Organic solvents:	<1 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** The material is stable under recommended storage and handling conditions.
- **Chemical stability**
Stable under normal temperature conditions and under recommended usage and storage.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** High temperature
- **Incompatible materials:** Reacts with alkali (lyes).
- **Hazardous decomposition products:** None known.

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11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

ATE (calculated)	>5,000 mg/kg (Dermal)
	>5,000 mg/kg (Oral)

· **LD/LC50 values that are relevant for classification:**

CAS: 9003-36-5 Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Oral	LD50	>5,000 mg/kg (Rat)
Dermal	LD50	>2,000 mg/kg (Rabbit)
Inhalative	LC50 (4 h)	>1.7 mg/L (Rat)

CAS: 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

Oral	LD50	>1,000 mg/kg (Rat)
Dermal	LD50	>1,600 mg/kg (Rat)

CAS: 14228-73-0 1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane

Oral	LD50	1,098 mg/kg (Rat)
Dermal	LD50	2,500 mg/kg (Rabbit)
Inhalative	LC50 (4 h)	5.19 mg/L (Rat)

CAS: 2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Oral	LD50	7,010 mg/kg (Rat)
Dermal	LD50	4,000 mg/kg (Rabbit)
Inhalative	LC50 (4 h)	>5.3 mg/L (Rat)

CAS: 128-37-0 2,6-di-tert-butyl-p-cresol

Oral	LD50	>2,930 mg/kg (Rat)
Dermal	LD50	>2,000 mg/kg (Rabbit)

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:**

Causes serious eye irritation.
Irritating effect.

CAS: 2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Irritation of eyes	Serious Eye Damage/Irritation	(Rabbit) (Corrosive)
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· **Sensitization:** Sensitization possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

CAS: 1675-54-3	bis[4-(2,3-epoxypropoxy)phenyl]propane	3
CAS: 60676-86-0	Silica, fused	3
CAS: 7631-86-9	silicon dioxide, chemically prepared	3

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CAS: 128-37-0	2,6-di-tert-butyl-p-cresol	3
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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

CAS: 9003-36-5 Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

LC50 (96 h)	0.55 mg/L (Fish)
EC50 (48 h)	1.6 mg/L (Daphnia)
EC50 (72 h)	1.8 mg/L (Algae)
NOEC - No observed effect concentration	0.3 mg/l (Daphnia)

CAS: 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

LC50 (96 h)	2 mg/L (Fish)
EC50 (48 h)	1.8 mg/L (Daphnia)
EC50 (72 h)	>11 mg/L (Algae)
NOEC - No observed effect concentration	4.2 mg/l (Algae) 0.3 mg/l (Daphnia)

CAS: 14228-73-0 1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane

LC50 (96 h)	10.1 mg/L (Fish)
EC50 (48 h)	16.3 mg/L (Daphnia)
EC50 (72 h)	26.7 mg/L (Algae)
NOEC - No observed effect concentration	11.7 mg/l (Daphnia)

CAS: 2530-83-8 [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

EC50	350 mg/L (Algae) (96h) 473 mg/L (Daphnia) (48h)
NOEC - No observed effect concentration	130 mg/l (Algae) (21d)

CAS: 128-37-0 2,6-di-tert-butyl-p-cresol

LC50 (96 h)	>100 mg/L (Fish)
EC50 (48 h)	0.48 mg/L (Daphnia)
EC50 (72 h)	>0.4 mg/L (Algae)
NOEC - No observed effect concentration	0.4 mg/l (Algae) 0.023 mg/l (Daphnia) 0.053 mg/l (Fish)

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- **Persistence and degradability**

CAS: 9003-36-5 Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Biodegradability | 16 % (Experimental) (OECD 301B)

CAS: 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

Biodegradability | 5 % (Experimental) (OECD 301F)

CAS: 14228-73-0 1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane

Biodegradability | 16.6 % (Calculated) (OECD 301F)

- **Behavior in environmental systems:**

- **Bioaccumulative potential**

CAS: 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane

Bioconcentration factor | 31 (Calculated)

CAS: 14228-73-0 1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane

Bioaccumulation factor | 3 (Calculated)

CAS: 128-37-0 2,6-di-tert-butyl-p-cresol

Bioaccumulation factor | 1,277 (Fish) (OECD 305E)

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:** Toxic for aquatic organisms

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Hand over to hazardous waste disposers.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

- **Recommendation:**

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

- **UN-Number**

- **DOT, IMDG**

- **ADR, IATA**

Void

UN3077

- **UN proper shipping name**

- **DOT, IMDG**

- **ADR**

Void

3077 Environmentally hazardous substances, solid, n.o.s. (phenol, polymer with formaldehyde, glycidyl ether, reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average

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	<p>either single or inner packaging of 5L or less for liquids or 5kg or less for solids, are not subject to any other provisions of ADR/ADR-S, provided they are packed in good quality packagings and adhere to the general packaging provisions. The same provision can be found in IMDG 2016 2.10.2.7, and as Special Provision A197 in the current 58th edition of IATA.</p> <p>Warning: Miscellaneous dangerous substances and articles</p>
<ul style="list-style-type: none"> · Hazard identification number (Kemler code): 90 · Stowage Category A 	
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. 	
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Excepted quantities (EQ) 	<p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 g</p> <p>Maximum net quantity per outer packaging: 1000 g</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p>UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER, REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT \leq 700)), 9, III</p>

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
EU Regulation (EC) no.1907/2006 (REACH)
- **Sara**
- **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**
None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):**
All components have the value ACTIVE.
- **Hazardous Air Pollutants**
None of the ingredients is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:**
None of the ingredients is listed.

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· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

CAS: 128-37-0 | 2,6-di-tert-butyl-p-cresol

A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



· **Signal word** Warning

· **Hazard-determining components of labeling:**

bis[4-(2,3-epoxypropoxy)phenyl]propane

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane

· **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

· **Precautionary statements**

P273 Avoid release to the environment.

P280 Wear protective gloves.

P302+P352 If on skin: Wash with plenty of water.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P362+P364 Take off contaminated clothing and wash it before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P321 Specific treatment (see on this label).

P337+P313 If eye irritation persists: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

LIMITATION OF LIABILITY

This document is only intended to be used as guidance as regards the risks of which we are aware that are associated with the product. Every individual who works with the product or in close proximity of it must receive suitable training. Individuals who come into contact with the product must be capable of using their own judgement as regards conditions or methods for handling, storing and using the product. Alfa Laval is not liable for demands, losses or damage of any kind that arise from flaws or deficiencies in this document or from using, handling, storing or disposing of the product unless it can be proven that Alfa Laval has acted in a grossly negligent manner. Beyond what has been agreed upon and specified in writing with Alfa Laval in the individual case, Alfa Laval makes no promises or assumes any liability, including but not limited to implicit guarantees regarding marketability or appropriateness in terms of both the information provided in this document and the product to which the information refers.

Please contact your local Alfa Laval Sales Company for further questions.

www.alfalaval.com

· **Department issuing SDS:** Alfa Laval Corporate Standards & Regulatory Operations

· **Contact:**

Please contact your local Alfa Laval Sales Company for further questions.

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France: environnement@alfalaval.com

Germany: info.mideurope@alfalaval.com

Greece: greece.info@alfalaval.com

Hungary: info.hu@alfalaval.com

India: india.info@alfalaval.com

Indonesia: alfalindo@alfalaval.com

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Italy: alfalaval.italia@alfalaval.com

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New Zealand: newzealand.info@alfalaval.com
Norway: info.no@alfalaval.com
Peru: ventas.peru@alfalaval.com
Philippines: philippines.info@alfalaval.com
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• **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

• *** Data compared to the previous version altered.**