

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 14.11.2019

Revision: 14.11.2019

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

- **1.1 Product identifier** For professional use only
- **Trade name:** 2K Etch Primer ST3000 LF-63 Chromate Free
- **Article number:** 3172
- **1.2 Relevant identified uses of the substance or mixture and uses advised against** Surface Coating
- **Application of the substance / the mixture** Surface Coating
- **Uses advised against** Product is not intended, labelled or packaged for consumer use.
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier:**
HMG PAINTS LIMITED
RIVERSIDE WORKS, COLLYHURST ROAD,
MANCHESTER. M40 7RU
UNITED KINGDOM
TEL: +44 (0)161 205 7631
EMAIL: sales@hmgpaint.com
- **Further information obtainable from:** sales@hmgpaint.com
- **1.4 Emergency telephone number:** +44 (0)161 205 7631 (Business hours)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 2	H225	Highly flammable liquid and vapour.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Dam. 1	H318	Causes serious eye damage.
Skin Sens. 1	H317	May cause an allergic skin reaction.
STOT SE 3	H335-H336	May cause respiratory irritation. May cause drowsiness or dizziness.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



- **Signal word** Danger
- **Hazard-determining components of labelling:**
isobutanol
Reaction product: bisphenol A-(epichlorohydrin); epoxy resin (number average molecular weight > 700)
- **Hazard statements**

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.11.2019

Revision: 14.11.2019

Trade name: 2K Etch Primer ST3000 LF-63 Chromate Free

(Contd. of page 1)

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

• Precautionary statements

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

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

P405 Store locked up.

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

• 2.3 Other hazards**• Results of PBT and vPvB assessment**

• PBT: Not applicable.

• vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**• 3.2 Chemical characterisation: Mixtures**• **Description:** Mixture of substances listed below with nonhazardous additions.**• Dangerous components:**

CAS: 78-83-1 EINECS: 201-148-0 Reg.nr.: 01-2119484609-23-XXXX	isobutanol Flam. Liq. 3, H226; Eye Dam. 1, H318; Skin Irrit. 2, H315; STOT SE 3, H335-H336	>25-≤50%
CAS: 78-93-3 EINECS: 201-159-0 Reg.nr.: 01-2119457290-43	methyl ethyl ketone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	>10-≤25%
CAS: 68648-78-2	Polyvinyl Butyral substance with a Community workplace exposure limit	>10-≤25%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32-xxxx	Xylene (mix) Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	>2.5-≤10%
CAS: 7779-90-0 EINECS: 231-944-3 Reg.nr.: 01-2119485044-40-0000	trizinc bis(orthophosphate) Aquatic Acute 1, H400; Aquatic Chronic 1, H410	>1-≤2.5%
CAS: 25036-25-3 EC number: 607-500-3	Reaction product: bisphenol A-(epichlorohydrin); epoxy resin (number average molecular weight > 700) Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	>1-≤2.5%
CAS: 100-41-4 EINECS: 202-849-4 Reg.nr.: 01-2119489370-35	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332	>1-≤2.5%
CAS: 1314-13-2 EINECS: 215-222-5 Reg.nr.: 01-2119463881-32-xxxx	zinc oxide Aquatic Acute 1, H400; Aquatic Chronic 1, H410	>1-≤2.5%
CAS: 68002-18-6	Urea P/W Formaldehyde, Isobutylated Aquatic Chronic 4, H413	>1-≤2.5%
CAS: 108-95-2 EINECS: 203-632-7 Reg.nr.: 01-2119471329-32	phenol Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; STOT RE 2, H373; Skin Corr. 1B, H314	≤1%

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.11.2019

Revision: 14.11.2019

Trade name: 2K Etch Primer ST3000 LF-63 Chromate Free

(Contd. of page 2)

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air and call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly. Remove contaminated clothing.
Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Do not induce vomiting; call for medical help immediately and show safety datasheet or label.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed** Treat symptomatically.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Put on breathing apparatus

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Keep receptacles tightly sealed.
Ensure good ventilation/extraction at the workplace.
Prevent formation of aerosols.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.11.2019

Revision: 14.11.2019

Trade name: 2K Etch Primer ST3000 LF-63 Chromate Free

(Contd. of page 3)

- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed and in a well-ventilated place.
Keep away from heat.
Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

78-83-1 isobutanol

WEL	Short-term value: 231 mg/m ³ , 75 ppm Long-term value: 154 mg/m ³ , 50 ppm
-----	---

78-93-3 methyl ethyl ketone

WEL	Short-term value: 899 mg/m ³ , 300 ppm Long-term value: 600 mg/m ³ , 200 ppm Sk, BMGV
-----	---

68648-78-2 Polyvinyl Butyral

TWA	Long-term value: 4 mg/m ³
-----	--------------------------------------

1330-20-7 Xylene (mix)

WEL	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
-----	--

100-41-4 ethylbenzene

WEL	Short-term value: 552 mg/m ³ , 125 ppm Long-term value: 441 mg/m ³ , 100 ppm Sk
-----	---

108-95-2 phenol

WEL	Short-term value: 16 mg/m ³ , 4 ppm Long-term value: 7.8 mg/m ³ , 2 ppm Sk
-----	--

· **DNELs**

78-83-1 isobutanol

Oral	DNEL	25 mg/day (Con)
Inhalative	DNEL	55 mg/m ³ (Con) 310 mg/m ³ (Ind)

78-93-3 methyl ethyl ketone

Oral	DNEL	31 mg/day (Con)
Dermal	DNEL	412 mg/day (Con) 1,161 mg/day (Ind)
Inhalative	DNEL	106 mg/m ³ (Con) 600 mg/m ³ (Ind)

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.11.2019

Revision: 14.11.2019

Trade name: 2K Etch Primer ST3000 LF-63 Chromate Free

(Contd. of page 4)

1330-20-7 Xylene (mix)

Dermal	DNEL	108 mg/day (Con) 180 mg/day (Ind)
Inhalative	DNEL	14.8 mg/m ³ (Con) 77 mg/m ³ (Ind)

7779-90-0 trizinc bis(orthophosphate)

Oral	DNEL	0.83 mg/day (Con)
Dermal	DNEL	83 mg/day (Con) 83 mg/day (Ind)
Inhalative	DNEL	2.5 mg/m ³ (Con) 5 mg/m ³ (Ind)

1314-13-2 zinc oxide

Oral	DNEL	0.83 mg/day (Con)
Dermal	DNEL	83 mg/day (Con) 83 mg/day (Ind)
Inhalative	DNEL	2.5 mg/m ³ (Con) 5 mg/m ³ (Ind)

108-95-2 phenol

Oral	DNEL	0.4 mg/day (Con)
Dermal	DNEL	0.4 mg/day (Con) 1.23 mg/day (Ind)
Inhalative	DNEL	1.32 mg/m ³ (Con) 8 mg/m ³ (Ind)

· PNECs

CAS No. 1330-20-7 Xylene mixed isomers

- Fresh water; 0.327 mg/l
- Marine water; 0.327 mg/l
- Intermittent release; 0.327 mg/l
- STP; 6.58 mg/l
- Sediment (Freshwater); 12.46 mg/kg
- Sediment (Marinewater); 12.46 mg/kg
- Soil; 2.31 mg/kg

· Ingredients with biological limit values:**78-93-3 methyl ethyl ketone**

BMGV	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one
------	---

1330-20-7 Xylene (mix)

BMGV	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid
------	--

· Additional information: The lists valid during the making were used as basis.**· 8.2 Exposure controls****· Personal protective equipment:****· General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.11.2019

Revision: 14.11.2019

Trade name: 2K Etch Primer ST3000 LF-63 Chromate Free

(Contd. of page 5)

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Respiratory protection:** When spraying the product, use a respiratory protective device.· **Protection of hands:**

Protective gloves

· **Material of gloves**

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

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form:	Liquid
Colour:	Yellow
Odour:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** Not determined.· **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	79 °C

· **Flash point:** -9 °C· **Flammability (solid, gas):** Not applicable.· **Ignition temperature:** >380 °C· **Decomposition temperature:** Not determined.· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

Lower:	1.7 Vol %
Upper:	12 Vol %

· **Vapour pressure at 20 °C:** 10,400 hPa· **Density at 20 °C:** 0.92 g/cm³· **Relative density** Not determined.· **Vapour density** Not determined.· **Evaporation rate** Not determined.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.11.2019

Revision: 14.11.2019

Trade name: 2K Etch Primer ST3000 LF-63 Chromate Free

(Contd. of page 6)

· Solubility in / Miscibility with water:	NOT MISCIBLE
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	190 mPas
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	73.2 %
Solids content:	25.3 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products:
No dangerous decomposition products when stored and handled correctly

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

78-83-1 isobutanol

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

78-93-3 methyl ethyl ketone

Oral	LD50	3,460 mg/kg (Rat)
Dermal	LD50	5,000 mg/kg (Rab)

1330-20-7 Xylene (mix)

Oral	LD50	5,000 mg/kg (Rat)
Dermal	LD50	2,000 mg/kg (rbt)
Inhalative	LC50/4 h	11 mg/l (Rat)

7779-90-0 trizinc bis(orthophosphate)

Oral	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	>5.7 mg/l (Rat)

25036-25-3 Reaction product: bisphenol A-(epichlorohydrin); epoxy resin (number average molecular weight > 700)

Oral	LD50	>10,000 mg/kg (Rat)
------	------	---------------------

100-41-4 ethylbenzene

Oral	LD50	3,500 mg/kg (rat)
Dermal	LD50	17,800 mg/kg (rbt)

(Contd. on page 8)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.11.2019

Revision: 14.11.2019

Trade name: 2K Etch Primer ST3000 LF-63 Chromate Free

(Contd. of page 7)

1314-13-2 zinc oxide

Oral	LD50	>5,000 mg/kg (Rat)
Inhalative	LC50/4 h	>5.7 mg/l (Rat)

108-95-2 phenol

Oral	LD50	300 mg/kg (mus)
Dermal	LD50	670 mg/kg (rat)
Inhalative	LC50/4 h	316 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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**
May cause respiratory irritation. May cause drowsiness or dizziness.
- **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.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.11.2019




Revision: 14.11.2019

Trade name: 2K Etch Primer ST3000 LF-63 Chromate Free

(Contd. of page 8)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number	UN1263
· ADR, IMDG, IATA	
· 14.2 UN proper shipping name	1263 PAINT (vapour pressure at 50°C not more than 110 kPa), ENVIRONMENTALLY HAZARDOUS
· ADR	PAINT (reaction product: bisphenol-A-(epichlorhydrin epoxy resin), MARINE POLLUTANT
· IMDG	PAINT
· IATA	
· 14.3 Transport hazard class(es)	
· ADR, IMDG	
	
	
· Class	3 Flammable liquids.
· Label	3
· IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	II
· ADR, IMDG, IATA	
· 14.5 Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	33
· EMS Number:	F-E,S-E
· Stowage Category	B
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.11.2019

Revision: 14.11.2019

Trade name: 2K Etch Primer ST3000 LF-63 Chromate Free

(Contd. of page 9)

· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1263 PAINT (VAPOUR PRESSURE AT 50°C NOT MORE THAN 110 KPA), 3, II, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Technical instructions (air):**

Class	Share in %
I	0.3
NK	73.1

- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.

- **Full text of H-Statements referred to under sections 2 and 3:**
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H341 Suspected of causing genetic defects.
H373 May cause damage to the hearing organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

(Contd. on page 11)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.11.2019

Revision: 14.11.2019

Trade name: 2K Etch Primer ST3000 LF-63 Chromate Free

(Contd. of page 10)

H413 May cause long lasting harmful effects to aquatic life.

· **Department issuing SDS:** Product safety department: **LABORATORY**

· **Abbreviations and acronyms:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

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

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

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

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 2: Germ cell mutagenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4