Printing date 12/05/2018 Reviewed on 12/05/2018

1 Identification

· Product identifier

· Trade name: Orchard Fragrance

• Part number: 90-4120-20, 90-0931-20, 34-8000-20, 90-8000-20, 34-9000-20, 90-9000-20, 34-7600-20, 34-7700-20

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Vaportek, Inc.

W226N6339 Village Drive Sussex, Wisconsin 53089

USA

800.237.6367

- · Information department: Regulatory Department
- · Emergency telephone number:

Hours of operation: 7:00 AM – 4:00 PM Mon-Fri. (CST)

Domestic North America (262) 246-5060

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Repr. 1A H360 May damage fertility or the unborn child.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Flam. Liq. 4 H227 Combustible liquid.

- · Label elements
- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS07

GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

ORANGE TERPENES

MINERAL SPIRITS

LILIAL

ALDEHYDE C-16

GERANYL ACETATE

HELIOTROPINE

AMYL CINNAMIC ALDEHYDE

HEXYL CINNAMIC ALDEHYDE

(Contd. on page 2)

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

(Contd. of page 1)

BENZYL SALICYLATE HYDROXYCITRONELLAL TRANS 2 HEXENAL LYRAL METHYL CINNAMATE TRIPLAL

CARROT SEED OIL

· Hazard statements

Combustible liquid.

Causes skin irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

May be fatal if swallowed and enters airways.

· Precautionary statements

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from flames and hot surfaces. - No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Immediately call a poison center/doctor.

Specific treatment (see on this label).

Do NOT induce vomiting.

If on skin: Wash with plenty of water.

IF exposed or concerned: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

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

Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 1 Fire = 2 Reactivity = 0

· HMIS-ratings (scale 0 - 4)

HEALTH	1	Health = 1
FIRE		Fire = 2
REACTIVIT	гу О	Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.

(Contd. on page 3)

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

· vPvB: Not applicable.

(Contd. of page 2)

3 Composition/information on ingredients

· Description: Mixture of the substances listed below with nonhazardous additions.

Dungerous	components:	
5989-27-5	ORANGE TERPENES	>10-≤25%
	(b) Flam. Liq. 3, H226; (c) Skin Irrit. 2, H315; Skin Sens. 1, H317	
88-41-5	VERDOX	>10– ≤ 25%
	Flam. Liq. 4, H227	
64742-48-9	MINERAL SPIRITS	>10–≤25%
	♦ Asp. Tox. 1, H304; Flam. Liq. 4, H227	
77-83-8	ALDEHYDE C-16	>2.5-≤10%
	♦ Skin Sens. 1, H317	
140-11-4	BENZYL ACETATE	>2.5-≤10%
98-55-5	TERPINEOL ALPHA	>2.5-<10%
	♦ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Flam. Liq. 4, H227	
6413-10-1	FRUCTONE	≤2.5%
	Flam. Liq. 4, H227	
105-87-3	GERANYL ACETATE	≥1-≤2.5%
	♦ Skin Irrit. 2, H315; Skin Sens. 1, H317	
100-52-7	BENZALDEHYDE	≤2.5%
	♦ Acute Tox. 4, H302; Flam. Liq. 4, H227	
4940-11-8	ETHYL MALTOL	≤2.5%
	Acute Tox. 3, H301	
106-27-4	AMYL BUTYRATE	≤ 2.5%
	♠ Flam. Liq. 3, H226	
120-57-0	HELIOTROPINE	≥1-≤2.5%
	♦ Skin Sens. 1, H317	
150-84-5	CITRONELLYL ACETATE	≤2.5%
	🛈 Skin Irrit. 2, H315	
122-40-7	AMYL CINNAMIC ALDEHYDE	≥0.1-<1%
	♦ Skin Sens. 1, H317	
101-86-0	HEXYL CINNAMIC ALDEHYDE	≥0.1-<1%
	♦ Skin Sens. 1, H317	
118-58-1	BENZYL SALICYLATE	≥0.1-<1%
	♦ Skin Sens. 1, H317	
107-75-5	HYDROXYCITRONELLAL	≥0.1-<1%
	♠ Eye Irrit. 2A, H319; Skin Sens. 1, H317	
6728-26-3		≥0.1-<1%
	♠ Flam. Liq. 3, H226; ♠ Acute Tox. 3, H311; ♠ Acute Tox. 4, H302; Skin Sens. 1, H317	
31906-04-4	LYRAL	≥0.1-<1%
	🗘 Skin Sens. 1A, H317	-1

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

			(Contd. of page 3)
10	03-26-4	METHYL CINNAMATE	≥0.1-<1%
		♦ Skin Sens. 1, H317]
8	80-54-6	LILIAL	≥0.1-<1%
		Acute Tox. 3, H301; Repr. 1A, H360; Skin Irrit. 2, H315; Skin Sens. 1, H317; Flam. Liq. 4, H227	
6803	89-49-6	TRIPLAL	≥0.1-<1%
		🕸 Skin Irrit. 2, H315; Skin Sens. 1, H317; Flam. Liq. 4, H227]
801	5-88-1	CARROT SEED OIL	≥0.1-<1%
		Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Skin Sens. 1, H317	

4 First-aid measures

- · Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · 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.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 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.

(Contd. on page 5)

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

Protective Action Criteria for Chemicals	(Contd. of pag
PAC-1:	
103-23-1 DIOCTYL ADIPATE	17 mg/n
5989-27-5 ORANGE TERPENES	15 ppm
140-11-4 BENZYL ACETATE	30 ppm
100-52-7 BENZALDEHYDE	4 ppm
141-97-9 ETHYL ACETOACETATE	12 mg/n
64-19-7 ACETIC ACID	5 ppm
91-20-3 NAPTHALENE	15 ppm
98-82-8 CUMENE	50 ppm
100-41-4 ETHYLBENZENE	33 ppm
110-54-3 N-HEXANE	260 ppn
100-42-5 STYRENE	20 ppm
108-88-3 TOLUENE	67 ppm
71-43-2 BENZENE	52 ppm
PAC-2:	•
103-23-1 DIOCTYL ADIPATE	180 mg/m
5989-27-5 ORANGE TERPENES	67 ppm
140-11-4 BENZYL ACETATE	330 ppm
100-52-7 BENZALDEHYDE	9.9 ppm
141-97-9 ETHYL ACETOACETATE	130 mg/m
64-19-7 ACETIC ACID	35 ppm
91-20-3 NAPTHALENE	83 ppm
98-82-8 CUMENE	300 ppm
100-41-4 ETHYLBENZENE	1100* pp
110-54-3 N-HEXANE	2900* pp
100-42-5 STYRENE	130 ppm
108-88-3 TOLUENE	560 ppm
71-43-2 BENZENE	800 ppm
PAC-3:	
103-23-1 DIOCTYL ADIPATE	1,100 mg/n
5989-27-5 ORANGE TERPENES	170 ppm
140-11-4 BENZYL ACETATE	2,000 ppm
100-52-7 BENZALDEHYDE	59 ppm
141-97-9 ETHYL ACETOACETATE	790 mg/m³
64-19-7 ACETIC ACID	250 ppm
91-20-3 NAPTHALENE	500 ppm
98-82-8 CUMENE	730 ppm
100-41-4 ETHYLBENZENE	1800* ppm
110-54-3 N-HEXANE	8600** ppi
100-42-5 STYRENE	1100* ppm
108-88-3 TOLUENE	3700* ppm

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

71-43-2 | BENZENE (Contd. of page 5) | 4000* ppm

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Keep respiratory protective device available.

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a tightly sealed containers in a cool, dry place that is well ventilated. Away from heat, spark, and open flame.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters

· Components v	with limit value	s that require mon	itoring at the workplace:
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140-11-4 BENZYL ACETATE

TLV Long-term value: 61 mg/m³, 10 ppm

100-52-7 BENZALDEHYDE

WEEL Short-term value: 4 ppm

Long-term value: 2 ppm

DSEN

- · Additional information: The lists that were valid during the creation were used as basis.
- · 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.

Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

(Contd. on page 7)

(Contd. of page 6)

Safety Data Sheet acc. to OSHA HCS

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

· Protection of hands:



The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· 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: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties				
· General Information				
· Appearance:	7 · · · 1			
Form:	Liquid			
Color:	Colorless to pale yellow			
· Odor:	Characteristic			
· Odor threshold:	Not determined.			
· pH-value:	Not determined.			
· Change in condition				
Melting point/Melting range:	Undetermined.			
Boiling point/Boiling range:	173 °C (343.4 °F)			
· Flash point:	61.1 °C (142 °F)			
· Flammability (solid, gaseous):	Not applicable.			
· Ignition temperature:	240 °C (464 °F)			
· Decomposition temperature:	Not determined.			
· Auto igniting:	Product is not selfigniting.			
· Danger of explosion:	Not determined.			
· Explosion limits:				
Lower:	0.3 Vol %			
Upper:	7 Vol %			
· Vapor pressure at 197 °C (386.6 °F):	2.6 hPa (2 mm Hg)			
· Density at 20 °C (68 °F):	0.92046 g/cm³ (7.68124 lbs/gal)			
· Relative density	Not determined.			
· Vapor density	Not determined.			

(Contd. on page 8)

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

		(Contd. of page
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water:	Not miscible or difficult to mix.	
· Partition coefficient (n-octanol	/water): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	15.1 %	
VOC content:	15.10 %	
	139.0 g/l / 1.16 lb/gal	
Solids content:	3.3 %	
· Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC5		es that are relevant for classification:
		es inat are recertain for classification. exicity Estimate)
Oral	LD50	5,112 mg/kg
Dermal	LD50	>26,667 mg/kg (rab)
5989-27	-5 OR	ANGE TERPENES
Oral	LD50	4,400 mg/kg (rat)
64742-4	8-9 MI	NERAL SPIRITS
Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>3,000 mg/kg (rab)
140-11-	4 BEN	ZYL ACETATE
Oral	LD50	2,490 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit)
98-55-5	TERP	INEOL ALPHA
Oral	LD50	4,300 mg/kg (rat)
		(Contd. on page 9

- US

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

		(Contd. of page 8)
100-52-7	BENZ	ZALDEHYDE
Oral L	LD50	1,300 mg/kg (rat)
120-57-0	HELI	OTROPINE
Oral L	LD50	2,700 mg/kg (rat)
6728-26-3	3 TRA	NS 2 HEXENAL
Oral L	LD50	780 mg/kg (rat)
Dermal L	LD50	600 mg/kg (rabbit)
103-26-4	METI	HYL CINNAMATE
Oral L	LD50	2,610 mg/kg (rat)

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: No irritating effect.
- · 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 (Inte	ernational Agency for Research on Cancer)	
103-23-1	DIOCTYL ADIPATE	3
5989-27-5	ORANGE TERPENES	3
140-11-4	BENZYL ACETATE	3
91-20-3	NAPTHALENE	2B
98-82-8	CUMENE	2B
100-41-4	ETHYLBENZENE	2B
100-42-5	STYRENE	2B
108-88-3	TOLUENE	3
71-43-2	BENZENE	1
· NTP (Nati	onal Toxicology Program)	
91-20-3	NAPTHALENE	R
98-82-8	CUMENE	R
100-42-5	STYRENE	R
71-43-2	BENZENE	K
· OSHA-Ca	(Occupational Safety & Health Administration)	
71-43-2 B	ENZENE	

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- $\cdot \textit{Persistence and degradability} \ \textit{No further relevant information available}.$
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.

(Contd. on page 10)

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

(Contd. of page 9)

- · Additional ecological information:
- · General notes:

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

- · 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:

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

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

· UN-Number	
· DOT, ADN, IMDG, IATA	not regulated
· UN proper shipping name · DOT, ADN, IMDG, IATA	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA · Class	not regulated
· Packing group · DOT, IMDG, IATA	not regulated
· Environmental hazards:	Product contains environmentally hazardous substances: ORANG TERPENES
· Marine pollutant:	Yes (DOT)
· Special precautions for user · Stowage Category	Not applicable. A
· Transport in bulk according to Annex	· ·
MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
\cdot DOT	
· Quantity limitations	On passenger aircraft/rail: No limit
	On cargo aircraft only: No limit
· UN "Model Regulation":	not regulated

US -

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

(Contd. of page 10)

	(Contd. of page
5 Regulatory information	
· Safety, health and environmental regulations/legislation specific for the substant \cdot Sara	ce or mixture
Section 355 (extremely hazardous substances):	
None of the ingredients is listed.	
Section 313 (Specific toxic chemical listings):	
91-20-3 NAPTHALENE	
98-82-8 CUMENE	
100-41-4 ETHYLBENZENE	
110-54-3 N-HEXANE	
100-42-5 STYRENE	
108-88-3 TOLUENE	
71-43-2 BENZENE	
TSCA (Toxic Substances Control Act):	
All ingredients are listed.	
TSCA new (21st Century Act) (Substances not listed)	
64742-48-9 MINERAL SPIRITS	
8015-88-1 CARROT SEED OIL	
Proposition 65	
Chemicals known to cause cancer:	
91-20-3 NAPTHALENE	
98-82-8 <i>CUMENE</i>	
100-41-4 ETHYLBENZENE	
100-42-5 STYRENE	
71-43-2 BENZENE	
Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	
Chemicals known to cause reproductive toxicity for males:	
110-54-3 N-HEXANE	
71-43-2 BENZENE	
Chemicals known to cause developmental toxicity:	
108-88-3 TOLUENE	
71-43-2 BENZENE	
Carcinogenic categories	
EPA (Environmental Protection Agency)	I a
103-23-1 DIOCTYL ADIPATE	C
91-20-3 NAPTHALENE	C, CBI
98-82-8 CUMENE	D, CBI
100-41-4 ETHYLBENZENE	D
110-54-3 N-HEXANE	II
108-88-3 TOLUENE	II (Contd. on mose

(Contd. on page 12)

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

		(Contd. of page 11)
71-43-2	BENZENE	A, K/L
· TLV (Threshold Limit Value established by ACGIH)		
140-11-4	BENZYL ACETATE	A4
91-20-3	NAPTHALENE	A4
100-41-4	ETHYLBENZENE	A3
100-42-5	STYRENE	A4
108-88-3	TOLUENE	A4
71-43-2	BENZENE	AI
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
71-43-2	BENZENE	

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





CHS07 CHS0

- · Signal word Danger
- · Hazard-determining components of labeling:

ORANGE TERPENES

MINERAL SPIRITS

LILIAL

ALDEHYDE C-16

GERANYL ACETATE

HELIOTROPINE

AMYL CINNAMIC ALDEHYDE

HEXYL CINNAMIC ALDEHYDE

BENZYL SALICYLATE

HYDROXYCITRONELLAL

TRANS 2 HEXENAL

LYRAL

METHYL CINNAMATE

TRIPLAL

CARROT SEED OIL

· Hazard statements

Combustible liquid.

Causes skin irritation.

May cause an allergic skin reaction.

May damage fertility or the unborn child.

May be fatal if swallowed and enters airways.

· Precautionary statements

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from flames and hot surfaces. - No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

(Contd. on page 13)

Printing date 12/05/2018 Reviewed on 12/05/2018

Trade name: Orchard Fragrance

(Contd. of page 12)

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Immediately call a poison center/doctor.

Specific treatment (see on this label).

Do NOT induce vomiting.

If on skin: Wash with plenty of water.

IF exposed or concerned: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

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

Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

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

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.

- · Department issuing SDS: Regulatory Department
- · Date of preparation / last revision 12/05/2018 / -
- · Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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) NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

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

 $Flam.\ Liq.\ 3:\ Flammable\ liquids-Category\ 3$

Flam. Liq. 4: Flammable liquids - Category 4

Acute Tox. 3: Acute toxicity - Category 3

Acute Tox. 4: Acute toxicity - Category 4

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

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

Skin Sens. 1: Skin sensitisation - Category 1

Skin Sens. 1A: Skin sensitisation - Category 1A

Repr. 1A: Reproductive toxicity - Category 1A

Asp. Tox. 1: Aspiration hazard - Category 1

* * Data compared to the previous version altered.