

Printing date 01/16/2024 Reviewed on 01/16/2024

### 1 Identification

· Product identifier

· Trade name: Smoke Flavor SMK306 Natural

· Product number: 1768

· Application of the substance / the mixture Flavoring Ingredients

· Details of the supplier of the safety data sheet

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Manufacturer/Supplier:

Advanced Biotech 10 Taft Road Totowa, NJ 07512 USA

· Information department:

Product Safety Department productsafety@adv-bio.com

· Emergency telephone number:

Infotrac: 1-800-535-5053 (Domestic) & 1-352-323-3500 (International)

Email: responders@infotrac.net & During normal business hours: 1-973-339-6242

### 2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Carcinogenicity 2 H351 Suspected of causing cancer.



**GHS05** Corrosion

Eye Damage 1 H318 Causes serious eye damage.



GHS07

Skin Irritation 2 H315 Causes skin irritation.

Sensitization - Skin 1 H317 May cause an allergic skin reaction.

**GHS** label elements

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.

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

(Continued on page 2)

(Continuation of page 1)



## Safety Data Sheet acc. to OSHA HCS (29 CFR § 1910.1200)

Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

· Hazard pictograms





GHS05 GHS07 GF

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

Acetic acid

α-Furfuraldehyde

Propionic acid

Methylcyclopentenolone

**Hazard statements** 

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

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.

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



Health = 3 Fire = 1 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = \*3 Fire = 1 Reactivity = 0

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

## 3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description:** Mixture of the substances listed below with nonhazardous additions.

(Continued on page 3)



Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

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Dangerous compor		
CAS: 64-19-7	Acetic acid	≥10-<25%
EINECS: 200-580-7	♦ Flammable Liquids 3, H226; ♦ Skin Corrosion 1A, H314; Eye Damage 1, H318; ♦ Acute Toxicity - Dermal 4, H312	
CAS: 116-09-6	hydroxyacetone	≤2.5%
EINECS: 204-124-8	Flammable Liquids 3, H226; Acute Toxicity - Dermal 3, H311; Acute Toxicity - Inhalation 4, H332	
CAS: 79-09-4	Propionic acid	≥1-≤2.5%
EINECS: 201-176-3	♦ Flammable Liquids 3, H226; ♦ Skin Corrosion 1B, H314; Eye Damage 1, H318; ♦ Specific Target Organ Toxicity - Single Exposure 3, H335	
CAS: 80-71-7	Methylcyclopentenolone	≥0.1-<1%
EINECS: 201-303-2	① Acute Toxicity - Oral 4, H302; Sensitization - Skin 1, H317	
	α-Furfuraldehyde	≥0.1-≤2.5
	Flammable Liquids 3, H226; Acute Toxicity - Oral 3, H301; Acute Toxicity - Inhalation 2, H330; Carcinogenicity 2, H351; Acute Toxicity - Dermal 4, H312; Skin Irritation 2, H315; Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H335	
CAS: 108-95-2	Phenol	<1%
EINECS: 203-632-7	Acute Toxicity - Oral 3, H301; Acute Toxicity - Dermal 3, H311; Acute Toxicity - Inhalation 3, H331; & Germ Cell Mutagenicity 2, H341; Specific Target Organ Toxicity - Repeated Exposure 2, H373; Skin Corrosion 1B, H314; Eye Damage 1, H318	
CAS: 93-51-6	2-Methoxy-4-methylphenol	≥0.1-<1%
EINECS: 202-252-9	Acute Toxicity - Oral 4, H302; Skin Irritation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1B, H317	
CAS: 67-56-1	Methanol	≤2.5%
EINECS: 200-659-6	<ul> <li>♦ Flammable Liquids 2, H225;</li> <li>♦ Acute Toxicity - Oral 3, H301;</li> <li>Acute Toxicity - Dermal 3, H311;</li> <li>Acute Toxicity - Inhalation 3, H331;</li> <li>♦ Specific Target Organ Toxicity - Single Exposure 1, H370</li> </ul>	

#### 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 be sure to 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. Then consult a doctor.
- · 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.



Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

(Continuation of page 3)

## 5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:

CO2, powder or alcoholresistant foam.

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.

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

- **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).

Use neutralizing agent.

Dispose contaminated material as waste according to section 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.

**Protective Action Criteria for Chemicals** 

· PAC-1:		
CAS: 64-19-7	Acetic acid	5 ppm
CAS: 116-09-6	nydroxyacetone	6.6 mg/m <sup>3</sup>
CAS: 79-09-4	Propionic acid	15 ppm
(	α-Furfuraldehyde	2 ppm
CAS: 108-95-2 F	Phenol	15 ppm
CAS: 107-92-6	Butyric acid	1.4 ppm
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	3.6 mg/m <sup>3</sup>
CAS: 67-56-1	Methanol	530 ppm
· PAC-2:		
CAS: 64-19-7	Acetic acid	35 ppm
CAS: 116-09-6	nydroxyacetone	73 mg/m³
CAS: 79-09-4	Propionic acid	28 ppm
	α-Furfuraldehyde	10 ppm
CAS: 108-95-2 F	Phenol	23 ppm
CAS: 107-92-6	Butyric acid	16 ppm
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	39 mg/m³
CAS: 67-56-1	Methanol	2,100 ppm
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Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

		(Continuation of page 4
PAC-3:		
CAS: 64-19-7	Acetic acid	250 ppm
CAS: 116-09-6	hydroxyacetone	440 mg/m³
CAS: 79-09-4	Propionic acid	170 ppm
	α-Furfuraldehyde	100 ppm
CAS: 108-95-2	Phenol	200 ppm
CAS: 107-92-6	Butyric acid	110 ppm
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	310 mg/m³
CAS: 67-56-1	Methanol	7200* 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 respiratory protective device available.

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

No special requirements.

Please refer to the product specification and/or Certificate of Analysis for product storage requirements.

- 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 section 7.
- · Control parameters
- Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

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

	CAS	: 64-19-7 Acetic acid
	PEL	Long-term value: 25 mg/m³, 10 ppm
	REL	Short-term value: 37 mg/m³, 15 ppm Long-term value: 25 mg/m³, 10 ppm
	TLV	Short-term value: 15 ppm Long-term value: 10 ppm
75	CAS	: 79-09-4 Propionic acid
	REL	Short-term value: 45 mg/m³, 15 ppm Long-term value: 30 mg/m³, 10 ppm
	TLV	Long-term value: 10 ppm
		(Continued on page 6)



Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

	(Continuation of page
α-Fu	rfuraldehyde
PEL	Long-term value: 20 mg/m³, 5 ppm Skin
TLV	Long-term value: 0.2 ppm Skin; BEI, A3
CAS	: 108-95-2 Phenol
PEL	Long-term value: 19 mg/m³, 5 ppm Skin
REL	Long-term value: 19 mg/m³, 5 ppm Ceiling limit value: 60* mg/m³, 15.6* ppm *15-min; Skin
	Long-term value: 5 ppm Skin; BEI, A4
CAS	67-56-1 Methanol
PEL	Long-term value: 260 mg/m³, 200 ppm
REL	Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin
TLV	Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEI
· Ingre	edients with biological limit values:
α-Fu	rfuraldehyde
	200 mg/L Medium: urine Time: end of shift Parameter: Furoic acid with hydrolysis (nonspecific)
	: 108-95-2 Phenol
	250 mg/g creatinine Medium: urine Time: end of shift Parameter: Phenol with hydrolysis (background, nonspecific)
	: 67-56-1 Methanol
	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)

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

Avoid contact with the eyes and skin.

(Continued on page 7)



Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

#### · Breathing equipment:

(Continuation of page 6)

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.

· Protection of hands:



Protective gloves

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 should be based 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 determined by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

## 9 Physical and chemical properties

· Information on basic physical and ch · General Information · Appearance:	emical properties
Form:	Liquid
Color: · Odor: · Odor threshold:	According to product specification According to product specification Not determined.
· pH-value:	Not determined.
<ul> <li>Change in condition</li> <li>Melting point/Melting range:</li> <li>Boiling point/Boiling range:</li> </ul>	Undetermined. Undetermined.
· Flash point:	>110 °C (>230 °F)
· Flammability (solid, gaseous):	Not applicable.
· Auto igniting:	485 °C (905 °F)
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.

(Continued on page 8)



Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

	(Continuation of page 7
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	4 Vol %
Upper:	17 Vol %
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
· Density at 20 °C (68 °F):	1.03 g/cm³ (8.59535 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/wat	er): Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	13.1 %
Water:	81.1 %
VOC content:	13.08 %
	134.7 g/l / 1.12 lb/gal
Solids content:	0.0 %
· Other information	No further relevant information available.
	V//

## 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/LC50 values that are relevant for classification:		
	ATE (Acu	te Toxicity	/ Estimate)
1	Oral	LD50	13,765 mg/kg
	Dermal	LD50	6,087 mg/kg
	Inhalative	LC50/4 h	165 mg/l

(Continued on page 9)



Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

(Continuation of page 8)

- · Primary irritant effect:
- on the skin: No irritant effect.
- · on the eye: Strong irritant with the danger of severe eye injury.
- · Sensitization: Sensitization possible through skin contact.
- Additional toxicological information:

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

İrritant

#### · Carcinogenic categories

· IARC (Internati	onal Agency for Research on Cancer)	
	α-Furfuraldehyde	3
CAS: 108-95-2	Phenol	3
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	3
· NTP (National	Toxicology Program)	<u> </u>
None of the ingr	redients is listed.	
· OSHA-Ca (Occ	upational Safety & Health Administration)	
None of the ingr	redients is listed.	

### 12 Ecological information

- · Toxicity
- Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- 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.

US



Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

(Continuation of page 9)

4 Transport information	
<u>.</u>	
· UN-Number · DOT, IMDG, IATA	UN2790
	0142730
· UN proper shipping name · DOT	Acetic acid solution
· IMDG, IATA	ACETIC ACID SOLUTION
Transport hazard class(es)	
· DOT	
OFFICION DE DE LA CONTROLIVE DE LA CONTR	
· Class	8 Corrosive substances
· Label	8
· IMDG, IATA	
8	
Class	8 Corrosive substances
· Label	8
· Packing group	/
· DOT, IMĎG, IÁTA	III
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Corrosive substances
Hazard identification number (Kemler code)	
· EMS Number:	F-A,S-B
· Segregation groups · Stowage Category	(SGG1) Acids A
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	Not applicable.
· Transport/Additional information:	
DOT	
· Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
IMPO	On Jurgo and art only. To E
· IMDG · Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml



Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

(Continuation of page 10)

Regulatory i	nformation	
· Safety, health a · Sara	nd environmental regulations/legislation specific for the	e substance or mixture
· Section 355 (ex	tremely hazardous substances):	7,
CAS: 108-95-2	Phenol	
· Section 313 (Sr	pecific toxic chemical listings):	-/
CAS: 108-95-2	- · · · · · · · · · · · · · · · · · · ·	
CAS: 67-56-1	Methanol	
· TSCA (Toxic Su	ibstances Control Act):	
•	Deionized Water	ACTIVE
CAS: 64-19-7	Acetic acid	ACTIVE
CAS: 116-09-6	hydroxyacetone	ACTIVE
CAS: 79-09-4	Propionic acid	ACTIVE
CAS: 90-05-1	Guaiacol	ACTIVE
CAS: 80-71-7	Methylcyclopentenolone	ACTIVE
	α-Furfuraldehyde	ACTIVE
CAS: 91-10-1	2,6-Dimethoxyphenol	ACTIVE
CAS: 108-95-2	Phenol	ACTIVE
CAS: 93-51-6	2-Methoxy-4-methylphenol	ACTIVE
CAS: 107-92-6	Butyric acid	ACTIVE
CAS: 96-48-0	4-Hydroxybutanoic acid lactone	ACTIVE
CAS: 67-56-1	Methanol	ACTIVE
CAS: 123-76-2	Levulinic acid	ACTIVE
· Hazardous Air	Pollutants	
CAS: 108-95-2	Phenol	
CAS: 67-56-1	Methanol	
Proposition 65		
· Chemicals kno	wn to cause cancer:	
None of the ingr	edients is listed.	
· Chemicals kno	wn to cause reproductive toxicity for females:	
None of the ingr		
	wn to cause reproductive toxicity for males:	
None of the ingr		
CAS: 67-56-1 N	wn to cause developmental toxicity:	
1 / /		
· Carcinogenic c	<u> </u>	
•	ental Protection Agency)	
CAS: 108-95-2	Phenol	D,
· TLV (Threshold	Limit Value)	
	α-Furfuraldehyde	AS
CAS: 108-95-2	Phenol	A



Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

(Continuation of page 11)

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

None of the ingredients is listed.

#### · GHS label elements

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.

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

### · Hazard pictograms







GHS05 GHS07 GHS08

### · Signal word Danger

### Hazard-determining components of labeling:

Acetic acid

α-Furfuraldehyde

Propionic acid

Methylcyclopentenolone

#### · Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

#### · Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

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.

· 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.

#### Relevant phrases

H225 Highly flammable liquid and vapor.

H226 Flammable liquid and vapor.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

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.

(Continued on page 13)



Printing date 01/16/2024 Reviewed on 01/16/2024

Trade name: Smoke Flavor SMK306 Natural

(Continuation of page 12)

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H370 Causes damage to organs.

H373 May cause damage to organs through prolonged or repeated exposure.

#### · Department issuing SDS: Product Safety Department

· Contact:

**Product Safety Department** productsafety@adv-bio.com

Date of preparation / last revision 01/16/2024

#### · 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)

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

BEI: Biological Exposure Limit

Flammable Liquids 2: Flammable liquids - Category 2

Flammable Liquids 3: Flammable liquids – Category 3 Acute Toxicity - Dermal 3: Acute toxicity – Category 3

Acute Toxicity - Dermal 4: Acute toxicity - Category 4

Acute Toxicity - Inhalation 2: Acute toxicity - Category 2 Skin Corrosion 1A: Skin corrosion/irritation - Category 1A

Skin Corrosion 1B: Skin corrosion/irritation - Category 1B

Skin Irritation 2: Skin corrosion/irritation - Category 2

Eye Damage 1: Serious eye damage/eye irritation - Category 1

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Sensitization - Skin 1: Skin sensitisation - Category 1

Sensitization - Skin 1B: Skin sensitisation - Category 1B Germ Cell Mutagenicity 2: Germ cell mutagenicity - Category 2

Carcinogenicity 2: Carcinogenicity - Category 2

Specific Target Organ Toxicity - Single Exposure 1: Specific target organ toxicity (single exposure) - Category 1

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) - Category 3

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) - Category 2