Thermo Fisher SCIENTIFIC

SAFETY DATA SHEET

Page 1/10 Creation Date 01-Feb-2010 Revision Date 08-May-2024 Version 5

ALFAAA16163

Formaldehyde, 37% w/w in aqueous solution

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

产品说明: 甲醛, 37% w/w 水溶液, 含 7-8% 甲醇做稳定剂 Product Description: Formaldehyde, 37% w/w in aqueous solution

Cat No. : A16163

Synonyms Formalin; Formol; Methanal

Molecular Formula C H2 O

Supplier Avocado Research Chemicals Ltd.

(Part of Thermo Fisher Scientific)

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Emergency Telephone Number For information US call: 001-800-227-6701 / Europe call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

E-mail address begel.sdsdesk@thermofisher.com

Recommended Use Laboratory chemicals.
Uses advised against No Information available

SECTION 2. HAZARD IDENTIFICATION

Physical StateAppearanceOdorLiquidColorlessIrritating pungent

Emergency Overview

Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of causing genetic defects. May cause cancer. Causes damage to organs. Toxic to aquatic life.

Combustible liquid. May cause respiratory irritation. Lachrymator (substance which increases the flow of tears).

Classification of the substance or mixture

Flammable liquids.	Category 4
Acute Oral Toxicity	Category 3
Acute Dermal Toxicity	Category 3
Acute Inhalation Toxicity - Vapors	Category 3
Skin Corrosion/Irritation	Category 1 B
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 1A
Specific target organ toxicity - (single exposure)	Category 1 Category 3
Acute aquatic toxicity	Category 2

Label Elements



Signal Word

Danger

Hazard Statements

H227 - Combustible liquid

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H341 - Suspected of causing genetic defects

H350 - May cause cancer

H370 - Causes damage to organs

H401 - Toxic to aquatic life

H335 - May cause respiratory irritation

Precautionary Statements

Prevention

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P241 - Use explosion-proof electrical/ ventilating/ lighting equipment

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P271 - Use only outdoors or in a well-ventilated area

P272 - Contaminated work clothing should not be allowed out of the workplace

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response

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

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

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

P310 - Immediately call a POISON CENTER or doctor

P330 - Rinse mouth

P331 - Do NOT induce vomiting

P363 - Wash contaminated clothing before reuse

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Physical and Chemical Hazards

Combustible material.

Health Hazards

Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Harmful if inhaled. Corrosive. Causes skin and eye burns. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. May cause cancer. Causes damage to organs. May cause respiratory irritation. Lachrymator (substance which increases the flow of tears).

Environmental hazards

Toxic to aquatic life. . Will likely be mobile in the environment due to its water solubility. The product is water soluble, and may spread in water systems.

Other Hazards

Lachrymator (substance which increases the flow of tears)

This product does not contain any known or suspected endocrine disruptors. Toxic to terrestrial vertebrates.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Water	7732-18-5	40-46
Formaldehyde	50-00-0	35-41
Methyl alcohol	67-56-1	5-14

SECTION 4. FIRST AID MEASURES

General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation

If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required.

Ingestion

Do NOT induce vomiting. Call a physician or poison control center immediately.

Most important symptoms and effects

Causes burns by all exposure routes. May cause allergic skin reaction. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Notes to Physician

Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water mist may be used to cool closed containers. CO₂, dry chemical, dry sand, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons

No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Combustible material. Containers may explode when heated.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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Formaldehyde, 37% w/w in aqueous solution

Personal Precautions

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions

Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition.

Refer to protective measures listed in Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

Handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Keep away from heat, sparks and flame.

Specific Use(s)

Use in laboratories

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Component	China	Taiwan	Thailand	Hong Kong
Formaldehyde	Ceiling: 0.5 mg/m ³	TWA: 1 ppm	STEL: 2 ppm	Ceiling: 0.3 ppm
		TWA: 1.2 mg/m ³	TWA: 0.75 ppm	Ceiling: 0.37 mg/m ³
Methyl alcohol	TWA: 25 mg/m ³	TWA: 200 ppm		TWA: 200 ppm
	STEL: 50 mg/m ³	TWA: 262 mg/m ³		TWA: 262 mg/m ³
	Skin			STEL: 250 ppm
				STEL: 328 mg/m ³

Component	ACGIH TLV	OSHA PEL	NIOSH	The United Kingdom	European Union
Formaldehyde	TWA: 0.1 ppm STEL: 0.3 ppm	(Vacated) TWA: 3 ppm (Vacated) STEL: 10 ppm (Vacated) Ceiling: 5 ppm TWA: 0.75 ppm STEL: 2 ppm	IDLH: 20 ppm TWA: 0.016 ppm Ceiling: 0.1 ppm	STEL: 2 ppm 15 min STEL: 2.5 mg/m³ 15 min TWA: 2 ppm 8 hr TWA: 2.5 mg/m³ 8 hr Carc.	TWA: 0.37 mg/m³ (8h) TWA: 0.3 ppm (8h) Skin STEL: 0.74 mg/m³ (8h) STEL: 0.6 ppm (8h)
Methyl alcohol	TWA: 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA: 260 mg/m³ (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m³ Skin TWA: 200 ppm	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m³ STEL: 250 ppm STEL: 325 mg/m³	WEL - TWA: 200 ppm TWA; 266 mg/m³ TWA WEL - STEL: 250 ppm STEL; 333 mg/m³ STEL	TWA: 260 mg/m ³ 8 hr

<u>Legend</u>

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

Monitoring methods

MDHS78 Formaldehyde in air. Laboratory method using a diffusive sampler, solvent desorption and high performance liquid chromatography BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS70 General methods for sampling airborne gases and vapours MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

Exposure Controls

Engineering Measures

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment

Eye Protection Goggles (European standard - EN 166)

system.

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Viton (R)	> 480 minutes	0.7 mm	EN 374	As tested under EN374-3 Determination of
Nitrile rubber	> 360 minutes	15 - 22 mil		Resistance to Permeation by Chemicals
Butyl rubber	> 240 minutes	25 -35 mil		•
Neoprene gloves	> 60 minutes	18 - 24 mil		

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection	Long sleeved clothing
Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to EN14387
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141 When RPE is used a face piece Fit Test should be conducted
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	Prevent product from entering drains. Do not allow material to contaminate ground water

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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Formaldehyde, 37% w/w in aqueous solution

Appearance Colorless
Physical State Liquid

Odor Irritating pungent
Odor Threshold 0.8 - 1 ppm
pH 3-4.2
Melting Point/Range -15 °C / 5 °F

Melting Point/Range -15 °C / 5 °F
Softening Point

Boiling Point/Range 97 °C / 206.6 °F

 Boiling Point/Range
 97 °C / 206.6 °F
 @ 760 mmHg

 Flash Point
 63 - 75 °C / 145.4 - 167 °F
 Method - No information available

Evaporation Rate No data available
Flammability (solid,gas) Not applicable Liquid

Explosion Limits Lower 7 vol%

Vapor Pressure Upper 73 vol% 2 mbar @ 20 °C

Vapor Density> 1.0(Air = 1.0)Specific Gravity / Density1.083Bulk DensityNot applicableLiquid

Water Solubility Miscible

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Componentlog PowFormaldehyde-0.35Methyl alcohol-0.74

Autoignition Temperature 424 °C / 795.2 °F

Decomposition Temperature > 150°C

Viscosity 1.0 mPas @ 20°C

Explosive Properties explosive air/vapour mixtures possible

Oxidizing Properties No information available

Molecular FormulaC H2 OMolecular Weight30.02

SECTION 10. STABILITY AND REACTIVITY

Stability Stable under normal conditions. Stabilized with Methanol. Hazardous polymerization may

occur upon depletion of inhibitor.

Hazardous ReactionsNone under normal processing.

Hazardous Polymerization Hazardous polymerization may occur upon depletion of inhibitor.

Conditions to Avoid Temperatures above 65°C. Keep away from open flames, hot surfaces and sources of

ignition.

Materials to avoid Strong oxidizing agents. Potassium permanganate. Peroxides. Perchloric acid + aniline.

Strong bases. Sodium hydroxide. Ammonia. Hydroxides. Sodium bisulfite. Strong acids. Hydrogen chloride. Isocyanates. Acid anhydrides. Magnesium carbonates. Iodine.

Hazardous Decomposition Products Formic acid. Oxygen from the air can oxidize formaldehyde to formic acid, especially when

heated. Carbon monoxide (CO). Carbon dioxide (CO2).

SECTION 11. TOXICOLOGICAL INFORMATION

Product Information

(a) acute toxicity;

Toxicology data for the components

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Formaldehyde, 37% w/w in aqueous solution

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	
Water	-	-	-	
Formaldehyde	500 mg/kg (Rat)	LD50 = 270 mg/kg (Rabbit)	0.578 mg/L (Rat) 4 h	
Methyl alcohol	LD50 = 1187 - 2769 mg/kg (Rat)	LD50 = 17100 mg/kg (Rabbit)	LC50 = 128.2 mg/L (Rat) 4 h	

(b) skin corrosion/irritation; Category 1 B

Category 1 (c) serious eye damage/irritation;

(d) respiratory or skin sensitization;

No data available Respiratory Skin Category 1

Coi	Component Test method		Test species	Study result
	naldehyde 0-0 (35-41)	Skin sensitization Test method Patch Test	Man guinea pig	Sensitizer Sensitization
		Respiratory sensitization in vitro		
	nyl alcohol 6-1(5-14)	OECD Test Guideline 406 Guinea Pig Maximisation Test (GPMT)	guinea pig	non-sensitising

No information available

(e) germ cell mutagenicity; Category 2

Mutagenic effects have occurred in humans

(f) carcinogenicity; Category 1B

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	EU	UK	Germany	IARC
Formaldehyde	Carc Cat. 1B	Cat 3		Group 1

(g) reproductive toxicity; No data available

Component	Test method	Test species / Duration	Study result
Methyl alcohol	OECD Test Guideline 416	Rat / Inhalation 2 Generation	NOAEC = 1.3 mg/l (air)
67-56-1 (5-14)			- ' '

Category 3 (h) STOT-single exposure;

Results / Target organs Respiratory system

Optic nerve

Central nervous system (CNS)

(i) STOT-repeated exposure; No data available

None known. **Target Organs**

No data available (j) aspiration hazard;

delayed

Symptoms / effects,both acute and Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

The product contains following substances which are hazardous for the environment. Contains a substance which is:. Toxic to aquatic organisms.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Formaldehyde	Leuciscus idus: LC50 =	EC50 = 20 mg/L 96h	EC50 (72h) = 4.89 mg/L	
	15 mg/L 96h	EC50 = 2 mg/L 48h	(Desmodesmus	
			subspicatus)	
Methyl alcohol		EC50 > 10000 mg/L 24h		EC50 = 39000 mg/L 25
	LC50 > 10000 mg/L 96h			min
				EC50 = 40000 mg/L 15
				min
				EC50 = 43000 mg/L 5
				min

Persistence and Degradability Persistence Not applicable for mixtures

Soluble in water, Persistence is unlikely, based on information available, Miscible with

water.

Component	Degradability
Formaldehyde	Readily biodegradable (OECD guideline 301A, 301C and 301D)
50-00-0 (35-41)	under aerobic and anaerobic conditions.
Methyl alcohol	DT50 ~ 17.2d
67-56-1 (5-14)	>94% after 20d

Degradation in sewage treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Bioaccumulative Potential Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)				
Formaldehyde	-0.35	No data available				
Methyl alcohol	-0.74	<10 dimensionless				

Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the

environment due to its water solubility Highly mobile in soils

Endocrine Disruptor Information Persistent Organic Pollutant Ozone Depletion Potential This product does not contain any known or suspected endocrine disruptors

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and

empty container away from heat and sources of ignition.

Other Information Do not flush to sewer. Waste codes should be assigned by the user based on the

application for which the product was used. Do not empty into drains. Large amounts will

affect pH and harm aquatic organisms.

SECTION 14. TRANSPORT INFORMATION

Road and Rail Transport

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Formaldehyde, 37% w/w in aqueous solution

UN-No UN2209

Proper Shipping Name FORMALDEHYDE SOLUTION

Hazard Class 8
Packing Group III

IMDG/IMO

UN-No UN2209

Proper Shipping Name FORMALDEHYDE SOLUTION

Hazard Class 8
Packing Group III

<u>IATA</u>

UN-No UN2209

Proper Shipping Name FORMALDEHYDE SOLUTION

Hazard Class 8
Packing Group III

Special Precautions for User No special precautions required

SECTION 15. REGULATORY INFORMATION

International Inventories

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

Component	The Inventory of Hazardous Chemicals (2015 Edition)		TCSI	IECSC	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	AICS	KECL
Water	-	-	X	Х	231-791-2	Х	Х	Х	Х		Х	KE-35400
Formaldehyde	Х	Х	X	Х	200-001-8	Х	Х	Х	Х	Х	Х	KE-17074
Methyl alcohol	X	Х	X	X	200-659-6	Х	Х	X	X	X	X	KE-23193

Component		Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements				
Formaldehyde	Э	5 tonne	50 tonne				
Methyl alcoho	ol	500 tonne	5000 tonne				

National Regulations

Component	Toxic Chemical Substances Control Act
Formaldehyde	Class II (15 wt%)
50-00-0 (35-41)	Class III (15 wt%)
	TRQ = 50 kg

SECTION 16. OTHER INFORMATION

Prepared By Health, Safety and Environmental Department

Creation Date 01-Feb-2010 Revision Date 08-May-2024

Revision Summary New emergency telephone response service provider.

Training Advice

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Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

Legend

CAS - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC50 - Lethal Concentration 50% NOEC - No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC - Predicted No Effect Concentration

LD50 - Lethal Dose 50%

Substances List

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association**

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

MARPOL - International Convention for the Prevention of Pollution from

ATE - Acute Toxicity Estimate VOC - (Volatile Organic Compound)

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Physical hazards On basis of test data **Health Hazards** Calculation method **Environmental hazards** Calculation method

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet