

SAFETY DATA SHEET



Dioxin Analyzer Standard, Part Number G3440-85039

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

1.1 Product identifier

Product name : Dioxin Analyzer Standard, Part Number G3440-85039
Part No. (Kit) : G3440-85039
Part No. : Dioxin/Furan/DL-PCB G3440-85039-1
Check Standard
DL/NDL-PCB Check G3440-85039-2
Standard

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	
Analytical chemistry.	
Dioxin/Furan/DL-PCB Check Standard	1 ml
DL/NDL-PCB Check Standard	1 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Dioxin/Furan/DL-PCB Mixture
Check Standard
DL/NDL-PCB Check Mixture
Standard

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Dioxin/Furan/DL-PCB Check Standard

H226 FLAMMABLE LIQUIDS - Category 3
H315 SKIN CORROSION/IRRITATION - Category 2
H336 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
H304 ASPIRATION HAZARD - Category 1
H400 ACUTE AQUATIC HAZARD - Category 1
H410 LONG-TERM AQUATIC HAZARD - Category 1

DL/NDL-PCB Check Standard

H225 FLAMMABLE LIQUIDS - Category 2
H315 SKIN CORROSION/IRRITATION - Category 2
H336 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
H304 ASPIRATION HAZARD - Category 1

Date of issue/Date of revision : 20/10/2016

SECTION 2: Hazards identification

H400 ACUTE AQUATIC HAZARD - Category 1
 H410 LONG-TERM AQUATIC HAZARD - Category 1

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal word

: Dioxin/Furan/DL-PCB Check Standard Danger
 DL/NDL-PCB Check Standard Danger

Hazard statements

: Dioxin/Furan/DL-PCB Check Standard **GHS02** - Flammable liquid and vapour.
GHS07 - Causes skin irritation.
 May cause drowsiness or dizziness.
GHS08 - May be fatal if swallowed and enters airways.
GHS09 - Very toxic to aquatic life with long lasting effects.
 DL/NDL-PCB Check Standard **GHS02** - Highly flammable liquid and vapour.
GHS07 - Causes skin irritation.
 May cause drowsiness or dizziness.
GHS08 - May be fatal if swallowed and enters airways.
GHS09 - Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

: Dioxin/Furan/DL-PCB Check Standard P280 - Wear protective gloves. Wear eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
 P273 - Avoid release to the environment.
 DL/NDL-PCB Check Standard P280 - Wear protective gloves. Wear eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
 P273 - Avoid release to the environment.

Response

: Dioxin/Furan/DL-PCB Check Standard P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 DL/NDL-PCB Check Standard P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P301 + P310 + P331 - IF SWALLOWED: Immediately call a

SECTION 2: Hazards identification

POISON CENTER or physician. Do NOT induce vomiting.
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P235 - Keep cool.

P235 - Keep cool.

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
 P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

- Nonane

- 2,2,4-trimethylpentane

Not applicable.

Not applicable.

Not applicable.

Not applicable.

Not applicable.

Not applicable.

Not applicable.

Not applicable.

Storage : Dioxin/Furan/DL-PCB Check Standard
 DL/NDL-PCB Check Standard

Disposal : Dioxin/Furan/DL-PCB Check Standard
 DL/NDL-PCB Check Standard

Hazardous ingredients : Dioxin/Furan/DL-PCB Check Standard
 DL/NDL-PCB Check Standard

Supplemental label elements : Dioxin/Furan/DL-PCB Check Standard
 DL/NDL-PCB Check Standard

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Dioxin/Furan/DL-PCB Check Standard
 DL/NDL-PCB Check Standard

Special packaging requirements

Tactile warning of danger : Dioxin/Furan/DL-PCB Check Standard
 DL/NDL-PCB Check Standard

2.3 Other hazards

Other hazards which do not result in classification : Dioxin/Furan/DL-PCB Check Standard
 DL/NDL-PCB Check Standard

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Dioxin/Furan/DL-PCB Check Standard Mixture
 DL/NDL-PCB Check Standard Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Dioxin/Furan/DL-PCB Check Standard nonane	EC: 203-913-4 CAS: 111-84-2	≥90	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
DL/NDL-PCB Check Standard 2,2,4-trimethylpentane	EC: 208-759-1 CAS: 540-84-1 Index: 601-009-00-8	≥90	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1)	[1]

SECTION 3: Composition/information on ingredients

			Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above.	
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: Dioxin/Furan/DL-PCB Check Standard	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	DL/NDL-PCB Check Standard	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Dioxin/Furan/DL-PCB Check Standard	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	DL/NDL-PCB Check Standard	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Dioxin/Furan/DL-PCB Check Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	DL/NDL-PCB Check Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

Ingestion	: Dioxin/Furan/DL-PCB Check Standard	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	DL/NDL-PCB Check Standard	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	: Dioxin/Furan/DL-PCB Check Standard	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	DL/NDL-PCB Check Standard	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: Dioxin/Furan/DL-PCB Check Standard	No known significant effects or critical hazards.
	DL/NDL-PCB Check Standard	No known significant effects or critical hazards.
Inhalation	: Dioxin/Furan/DL-PCB Check Standard	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
	DL/NDL-PCB Check Standard	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: Dioxin/Furan/DL-PCB Check Standard	Causes skin irritation.
	DL/NDL-PCB Check Standard	Causes skin irritation.
Ingestion	: Dioxin/Furan/DL-PCB Check Standard	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
	DL/NDL-PCB Check Standard	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

SECTION 4: First aid measures

Eye contact	: Dioxin/Furan/DL-PCB Check Standard	Adverse symptoms may include the following: pain or irritation watering redness
	DL/NDL-PCB Check Standard	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Dioxin/Furan/DL-PCB Check Standard	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	DL/NDL-PCB Check Standard	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Dioxin/Furan/DL-PCB Check Standard	Adverse symptoms may include the following: irritation redness
	DL/NDL-PCB Check Standard	Adverse symptoms may include the following: irritation redness
Ingestion	: Dioxin/Furan/DL-PCB Check Standard	Adverse symptoms may include the following: nausea or vomiting
	DL/NDL-PCB Check Standard	Adverse symptoms may include the following: nausea or vomiting

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: Dioxin/Furan/DL-PCB Check Standard	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	DL/NDL-PCB Check Standard	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Dioxin/Furan/DL-PCB Check Standard	No specific treatment.
	DL/NDL-PCB Check Standard	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Dioxin/Furan/DL-PCB Check Standard	Use dry chemical, CO ₂ , water spray (fog) or foam.
	DL/NDL-PCB Check Standard	Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Dioxin/Furan/DL-PCB Check Standard	Do not use water jet.
	DL/NDL-PCB Check Standard	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

Hazards from the substance or mixture	: Dioxin/Furan/DL-PCB Check Standard	Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	DL/NDL-PCB Check Standard	Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products	: Dioxin/Furan/DL-PCB Check Standard	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	DL/NDL-PCB Check Standard	Decomposition products may include the following materials: carbon dioxide carbon monoxide
5.3 Advice for firefighters		
Special precautions for fire-fighters	: Dioxin/Furan/DL-PCB Check Standard	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	DL/NDL-PCB Check Standard	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Dioxin/Furan/DL-PCB Check Standard	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	DL/NDL-PCB Check Standard	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Dioxin/Furan/DL-PCB Check Standard	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective
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SECTION 6: Accidental release measures

	DL/NDL-PCB Check Standard	equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: Dioxin/Furan/DL-PCB Check Standard	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	DL/NDL-PCB Check Standard	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	: Dioxin/Furan/DL-PCB Check Standard	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
	DL/NDL-PCB Check Standard	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
6.3 Methods and material for containment and cleaning up		
Methods for cleaning up	: Dioxin/Furan/DL-PCB Check Standard	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	DL/NDL-PCB Check Standard	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
6.4 Reference to other sections	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.	

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: Dioxin/Furan/DL-PCB Check Standard	Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from
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SECTION 7: Handling and storage

DL/NDL-PCB Check Standard

heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Dioxin/Furan/DL-PCB Check Standard

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

DL/NDL-PCB Check Standard

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage

: Dioxin/Furan/DL-PCB Check Standard

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

DL/NDL-PCB Check Standard

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Seveso Directive - Reporting thresholds (in tonnes)

Named substances

SECTION 7: Handling and storage

Name	Notification and MAPP threshold	Safety report threshold
Dioxin/Furan/DL-PCB Check Standard		
2,3,7,8-TCDD	-	0.001
1,2,3,7,8-PeCDD	-	0.001
1,2,3,4,7,8-HxCDD	-	0.001
1,2,3,6,7,8-HxCDD	-	0.001
1,2,3,7,8,9-HxCDD	-	0.001
1,2,3,4,6,7,8-HpCDD	-	0.001
OCDD	-	0.001
2,3,7,8-TCDF	-	0.001
1,2,3,7,8-PeCDF	-	0.001
2,3,4,7,8-PeCDF	-	0.001
1,2,3,4,7,8-HxCDF	-	0.001
1,2,3,6,7,8-HxCDF	-	0.001
1,2,3,7,8,9-HxCDF	-	0.001
2,3,4,6,7,8-HxCDF	-	0.001
1,2,3,4,6,7,8-HpCDF	-	0.001
1,2,3,4,7,8,9-HpCDF	-	0.001
OCDF	-	0.001

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
Dioxin/Furan/DL-PCB Check Standard		
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b	5000	50000
E1: Hazardous to the aquatic environment - Acute 1 or Chronic 1	100	200
DL/NDL-PCB Check Standard		
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b	5000	50000
E1: Hazardous to the aquatic environment - Acute 1 or Chronic 1	100	200

7.3 Specific end use(s)

Recommendations	: Dioxin/Furan/DL-PCB Check Standard	Industrial applications, Professional applications.
	: DL/NDL-PCB Check Standard	Industrial applications, Professional applications.
Industrial sector specific solutions	: Dioxin/Furan/DL-PCB Check Standard	Not applicable.
	: DL/NDL-PCB Check Standard	Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for
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SECTION 9: Physical and chemical properties

Colour	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. Not available.
Odour	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. Not available.
Odour threshold	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. Not available.
pH	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. Not available.
Melting point/freezing point	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	-53°C -107°C
Initial boiling point and boiling range	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	151°C 98 to 99°C
Flash point	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Closed cup: 31°C Closed cup: -12°C
Evaporation rate	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. Not available.
Flammability (solid, gas)	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not applicable. Not applicable.
Upper/lower flammability or explosive limits	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Lower: 0.87% Upper: 2.9% Lower: 1% Upper: 6%
Vapour pressure	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. 5.5 kPa [room temperature]
Vapour density	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. 3.94 [Air = 1]
Relative density	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. Not available.
Solubility(ies)	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Insoluble in the following materials: cold water and hot water. Insoluble in the following materials: cold water and hot water.

SECTION 9: Physical and chemical properties

Partition coefficient: n-octanol/water	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. Not available.
Auto-ignition temperature	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	205°C 396°C
Decomposition temperature	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. Not available.
Viscosity	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. Not available.
Explosive properties	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Explosive in the presence of the following materials or conditions: heat. Explosive in the presence of the following materials or conditions: heat.
Oxidising properties	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not available. Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
10.5 Incompatible materials	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Reactive or incompatible with the following materials: oxidizing materials Reactive or incompatible with the following materials: oxidizing materials

SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Dioxin/Furan/DL-PCB Check Standard nonane	LC50 Inhalation Vapour LD50 Oral	Rat Rat - Male, Female	3200 ppm >5000 mg/kg	4 hours -
DL/NDL-PCB Check Standard 2,2,4-trimethylpentane	LC50 Inhalation Vapour LD50 Oral	Rat - Male, Female Rat - Male, Female	>33.52 mg/l >5000 mg/kg	4 hours -

Acute toxicity estimates

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Dioxin/Furan/DL-PCB Check Standard nonane	Skin - Moderate irritant	Rat	-	96 hours 300 microliters	-

Sensitiser

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Dioxin/Furan/DL-PCB Check Standard nonane	Category 3	Not applicable.	Narcotic effects
DL/NDL-PCB Check Standard 2,2,4-trimethylpentane	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Product/ingredient name	Result
Dioxin/Furan/DL-PCB Check Standard Dioxin/Furan/DL-PCB Check Standard nonane	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1
DL/NDL-PCB Check Standard DL/NDL-PCB Check Standard 2,2,4-trimethylpentane	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on likely routes of exposure	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Inhalation.
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SECTION 11: Toxicological information

Potential acute health effects

Inhalation	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Ingestion	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
Skin contact	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Causes skin irritation. Causes skin irritation.
Eye contact	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	No known significant effects or critical hazards. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Ingestion	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Adverse symptoms may include the following: nausea or vomiting Adverse symptoms may include the following: nausea or vomiting
Skin contact	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Adverse symptoms may include the following: irritation redness Adverse symptoms may include the following: irritation redness
Eye contact	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Adverse symptoms may include the following: pain or irritation watering redness Adverse symptoms may include the following: pain or irritation watering redness

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

SECTION 11: Toxicological information

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Dioxin/Furan/DL-PCB Check Standard	No known significant effects or critical hazards.
	DL/NDL-PCB Check Standard	No known significant effects or critical hazards.
Carcinogenicity	: Dioxin/Furan/DL-PCB Check Standard	No known significant effects or critical hazards.
	DL/NDL-PCB Check Standard	No known significant effects or critical hazards.
Mutagenicity	: Dioxin/Furan/DL-PCB Check Standard	No known significant effects or critical hazards.
	DL/NDL-PCB Check Standard	No known significant effects or critical hazards.
Teratogenicity	: Dioxin/Furan/DL-PCB Check Standard	No known significant effects or critical hazards.
	DL/NDL-PCB Check Standard	No known significant effects or critical hazards.
Developmental effects	: Dioxin/Furan/DL-PCB Check Standard	No known significant effects or critical hazards.
	DL/NDL-PCB Check Standard	No known significant effects or critical hazards.
Fertility effects	: Dioxin/Furan/DL-PCB Check Standard	No known significant effects or critical hazards.
	DL/NDL-PCB Check Standard	No known significant effects or critical hazards.
Other information	: Dioxin/Furan/DL-PCB Check Standard	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.
	DL/NDL-PCB Check Standard	Adverse symptoms sometimes include the following: Repeated exposure may cause skin dryness or cracking.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Dioxin/Furan/DL-PCB Check Standard nonane	5.65	105	low
DL/NDL-PCB Check Standard 2,2,4-trimethylpentane	4.08	231	low

12.4 Mobility in soil

SECTION 12: Ecological information

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information**Regulatory information**

ADR/RID / IMDG / IATA : Not regulated.

Additional information : **Remarks**
De minimis quantities

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorisation****Annex XIV**

None of the components are listed.

Substances of very high concern

None of the components are listed.

SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Dioxin/Furan/DL-PCB Check Standard Not applicable.
DL/NDL-PCB Check Standard Not applicable.

Other EU regulations

Europe inventory : Not determined.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Named substances

Name
Dioxin/Furan/DL-PCB Check Standard
2,3,7,8-TCDD
1,2,3,7,8-PeCDD
1,2,3,4,7,8-HxCDD
1,2,3,6,7,8-HxCDD
1,2,3,7,8,9-HxCDD
1,2,3,4,6,7,8-HpCDD
OCDD
2,3,7,8-TCDF
1,2,3,7,8-PeCDF
2,3,4,7,8-PeCDF
1,2,3,4,7,8-HxCDF
1,2,3,6,7,8-HxCDF
1,2,3,7,8,9-HxCDF
2,3,4,6,7,8-HxCDF
1,2,3,4,6,7,8-HpCDF
1,2,3,4,7,8,9-HpCDF
OCDF

Danger criteria

Category
Dioxin/Furan/DL-PCB Check Standard
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b
E1: Hazardous to the aquatic environment - Acute 1 or Chronic 1
DL/NDL-PCB Check Standard
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b
E1: Hazardous to the aquatic environment - Acute 1 or Chronic 1

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

SECTION 15: Regulatory information

Not listed.

International lists

National inventory

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Japan	: Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Turkey	: Not determined.
United States	: Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Dioxin/Furan/DL-PCB Check Standard Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	On basis of test data Calculation method Calculation method Expert judgment Calculation method Calculation method
DL/NDL-PCB Check Standard Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	On basis of test data Calculation method Calculation method Expert judgment Calculation method Calculation method

Full text of abbreviated H statements

Dioxin/Furan/DL-PCB Check Standard H226 H304 H315 H336 H400 H410	Flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
DL/NDL-PCB Check Standard H225	Highly flammable liquid and vapour.

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19/20

SECTION 16: Other information

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

[Full text of classifications \[CLP/GHS\]](#)

<p>Dioxin/Furan/DL-PCB Check Standard Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Asp. Tox. 1, H304 Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336</p> <p>DL/NDL-PCB Check Standard Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Asp. Tox. 1, H304 Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336</p>	<p>ACUTE AQUATIC HAZARD - Category 1 LONG-TERM AQUATIC HAZARD - Category 1 ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3</p> <p>ACUTE AQUATIC HAZARD - Category 1 LONG-TERM AQUATIC HAZARD - Category 1 ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 2 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3</p>
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Date of previous issue : No previous validation.

Version : 1

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