

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. (chemical kit) : G3440-85039
Part no. : Dioxin/Furan/DL-PCB Check Standard G3440-85039-1
DL/NDL-PCB Check Standard G3440-85039-2

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

Material uses : Reagents and Standards for Analytical Chemistry Laboratory Use
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 Check Standard Mixture
DL/NDL-PCB Check Standard Mixture

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

Dioxin/Furan/DL-PCB Check Standard

H226 FLAMMABLE LIQUIDS - Category 3
H332 ACUTE TOXICITY (inhalation) - Category 4
H315 SKIN CORROSION/IRRITATION - Category 2
H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
H336 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
H304 ASPIRATION HAZARD - Category 1
H400 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
H410 LONG-TERM (CHRONIC) 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) -

Date of issue/Date of revision : 25/09/2018

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 2: Hazards identification

H304	Category 3
H400	ASPIRATION HAZARD - Category 1
H410	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
	LONG-TERM (CHRONIC) 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

:  Dioxin/Furan/DL-PCB Check Standard



DL/NDL-PCB Check Standard



Signal word

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

Danger

Danger

Hazard statements

:  Dioxin/Furan/DL-PCB Check Standard

H226 - Flammable liquid and vapour.

H332 - Harmful if inhaled.

H319 - Causes serious eye irritation.

H315 - Causes skin irritation.

H304 - May be fatal if swallowed and enters airways.

H336 - May cause drowsiness or dizziness.

H410 - Very toxic to aquatic life with long lasting effects.

H225 - Highly flammable liquid and vapour.

DL/NDL-PCB Check Standard

H315 - Causes skin irritation.

H304 - May be fatal if swallowed and enters airways.

H336 - May cause drowsiness or dizziness.

H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

:  Dioxin/Furan/DL-PCB Check Standard

P280 - Wear protective gloves. Wear protective clothing.

Wear eye or face protection.

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

P273 - Avoid release to the environment.

DL/NDL-PCB Check Standard

P280 - Wear protective gloves. Wear protective clothing.

Wear eye or face protection.

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

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.

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

DL/NDL-PCB Check Standard

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 2: Hazards identification

Storage	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	immediately all contaminated clothing. Rinse skin with water. P405 - Store locked up. P405 - Store locked up.
Disposal	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	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.
Hazardous ingredients	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	- Nonane - 2,2,4-trimethylpentane
Supplemental label elements	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not applicable. Not applicable.
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	Not applicable. Not applicable.
<u>Special packaging requirements</u>		
Tactile warning of danger	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Not applicable. Not applicable.

2.3 Other hazards

Other hazards which do not result in classification	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	None known. None known.
--	---	----------------------------

SECTION 3: Composition/information on ingredients

3.1 Substances	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Mixture 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 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 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	[1]

Date of issue/Date of revision : 25/09/2018

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 3: Composition/information on ingredients

			Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above.	
--	--	--	---	--

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
- [6] Additional disclosure due to company policy

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	: <input checked="" type="checkbox"/> 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	: <input checked="" type="checkbox"/> Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Causes serious eye irritation. No known significant effects or critical hazards.
Inhalation	: <input checked="" type="checkbox"/> Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: <input checked="" type="checkbox"/> Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Causes skin irritation. Causes skin irritation.
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.

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 4: First aid measures

Over-exposure signs/symptoms

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Dioxin/Furan/DL-PCB Check Standard DL/NDL-PCB Check Standard	Use dry chemical, CO ₂ , water spray (fog) or foam. Use dry chemical, CO ₂ , water spray (fog) or foam.
-------------------------------------	---	--

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 5: Firefighting measures

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

Hazards from the substance or mixture : Dioxin/Furan/DL-PCB Check Standard Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. 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. Runoff to sewer may create fire or explosion hazard. 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. 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 spilt 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.
	DL/NDL-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 spilt 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 spilt 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 spilt 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 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.
	DL/NDL-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 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. See Section 10 for incompatible materials before handling or use.
	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-

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 7: Handling and storage

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. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
Dioxin/Furan/DL-PCB Check Standard		
P5c	5000	50000
E1	100	200
DL/NDL-PCB Check Standard		
P5c	5000	50000
E1	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 methods for the determination of hazardous substances will also be required.
--	--

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Dioxin/Furan/DL-PCB Check Standard	Liquid.
	DL/NDL-PCB Check Standard	Liquid.
Colour	: Dioxin/Furan/DL-PCB Check Standard	Not available.
	DL/NDL-PCB Check Standard	Not available.
Odour	: Dioxin/Furan/DL-PCB Check Standard	Not available.
	DL/NDL-PCB Check Standard	Not available.

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 9: Physical and chemical properties

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.
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

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 9: Physical and chemical properties

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
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.

Dioxin Analyzer Standard, Part Number G3440-85039

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	Rat	17000 mg/m ³	4 hours
	LC50 Inhalation Vapour	Rat	3200 ppm	4 hours
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-
DL/NDL-PCB Check Standard 2,2,4-trimethylpentane	LC50 Inhalation Vapour	Rat - Male, Female	>33.52 mg/l	4 hours
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-

Acute toxicity estimates

Route	ATE value
Dioxin/Furan/DL-PCB Check Standard Inhalation (vapours)	17 mg/l

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.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

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

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 11: Toxicological information

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 Routes of entry anticipated: Oral, Dermal, Inhalation.
 DL/NDL-PCB Check Standard Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Inhalation : Dioxin/Furan/DL-PCB Check Standard Harmful if inhaled. 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.

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.

Skin contact : Dioxin/Furan/DL-PCB Check Standard Causes skin irritation.
 DL/NDL-PCB Check Standard Causes skin irritation.

Eye contact : Dioxin/Furan/DL-PCB Check Standard Causes serious eye irritation.
 DL/NDL-PCB Check Standard No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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

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

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

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 11: Toxicological information

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

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

Short term exposure

Potential immediate effects : Not available.

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

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
DL/NDL-PCB Check Standard 2,2,4-trimethylpentane	Acute LC50 0.11 mg/l Fresh water	Fish	96 hours

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

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.

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 14: Transport 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.

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

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.

Danger criteria

Category
Dioxin/Furan/DL-PCB Check Standard P5c E1
DL/NDL-PCB Check Standard P5c E1

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.

Date of issue/Date of revision : 25/09/2018

18/20

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 15: Regulatory information

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Europe	: 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.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: <input checked="" type="checkbox"/> 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
<input checked="" type="checkbox"/> Dioxin/Furan/DL-PCB Check Standard Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 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 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

Date of issue/Date of revision : 25/09/2018

19/20

Dioxin Analyzer Standard, Part Number G3440-85039

SECTION 16: Other information

[Full text of abbreviated H statements](#)

<p>Dioxin/Furan/DL-PCB Check Standard H226 H304 H315 H319 H332 H336 H400 H410</p>	<p>Flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause drowsiness or dizziness. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.</p>
<p>DL/NDL-PCB Check Standard H225 H304 H315 H336 H400 H410</p>	<p>Highly 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.</p>

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

<p>Dioxin/Furan/DL-PCB Check Standard Acute Tox. 4, H332 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Asp. Tox. 1, H304 Eye Irrit. 2, H319 Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336</p>	<p>ACUTE TOXICITY (inhalation) - Category 4 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 ASPIRATION HAZARD - Category 1 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3</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>SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) 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>

Date of issue/ Date of revision : 25/09/2018

Date of previous issue : 20/10/2016

Version : 2

[Notice to reader](#)

Disclaimer: The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.