SAFETY DATA SHEET





Dioxin Analyzer Standard

Section 1. Identification

1.1 Product identifier

Product name : Dioxin Analyzer Standard

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

Validation date : 10/29/2024

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

Identified 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

Supplier/Manufacturer: Agilent Technologies, Inc.

5301 Stevens Creek Blvd Santa Clara, CA 95051, USA

800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : Dioxin/Furan/DL-PCB This material is considered hazardous by the OSHA

Check Standard Hazard Communication Standard (29 CFR 1910.1200).

DL/NDL-PCB Check This material is considered hazardous by the OSHA
Standard Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

Dioxin/Furan/DL-PCB Check

Standard

H226 FLAMMABLE LIQUIDS - Category 3
H332 ACUTE TOXICITY (inhalation) - Category 4

H315 SKIN IRRITATION - Category 2 H319 EYE IRRITATION - Category 2A

H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

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

DL/NDL-PCB Check Standard

H225 FLAMMABLE LIQUIDS - Category 2 H315 SKIN IRRITATION - Category 2

H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

H304 ASPIRATION HAZARD - Category 1 H400 AQUATIC HAZARD (ACUTE) - Category 1

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Section 2. Hazards identification

H410 AQUATIC HAZARD (LONG-TERM) - Category 1

2.2 GHS label elements

Hazard pictograms

: Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

















Signal word

Hazard statements

: Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check StandardDioxin/Furan/DL-PCB Check

Standard

Danger Danger

H226 - Flammable liquid and vapor.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness. H373 - May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS))

H410 - Very toxic to aquatic life with long lasting

effects.

DL/NDL-PCB Check Standard

H225 - Highly flammable liquid and vapor.

H304 - May be fatal if swallowed and enters

airways.

H315 - Causes skin irritation.

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 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 or lighting equipment.

P242 - Use non-sparking tools.

P243 - Take action to prevent static discharges.

P273 - Avoid release to the environment.

P260 - Do not breathe vapor.

P264 - Wash thoroughly after handling.

DL/NDL-PCB Check Standard P280 - Wear protective gloves.

P210 - Keep away from heat, hot surfaces, sparks,

open flames and other ignition sources. No

smoking.

P241 - Use explosion-proof electrical, ventilating or lighting equipment.

P242 - Use non-sparking tools.

P243 - Take action to prevent static discharges.

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2.3 Other hazards
Hazards not otherwise

classified

Section 2. Hazards identification

		P273 - Avoid release to the environment. P261 - Avoid breathing vapor. P264 - Wash thoroughly after handling.
Response	: Dioxin/Furan/DL-PCB Check Standard	P391 - Collect spillage.
	DL/NDL-PCB Check Standard	P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention. P391 - Collect spillage. P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water.
Storage	: Dioxin/Furan/DL-PCB Check Standard	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P403 + P235 - Keep cool.
	DL/NDL-PCB Check Standard	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P403 + P235 - Keep cool.
Disposal	Dioxin/Furan/DL-PCB Check StandardDL/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
Supplemental label	: Dioxin/Furan/DL-PCB Check	international regulations. None known.
elements	Standard DL/NDL-PCB Check Standard	None known.

Standard

: Dioxin/Furan/DL-PCB Check

DL/NDL-PCB Check Standard

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None known.

None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Dioxin/Furan/DL-PCB Check

Mixture

Standard

DL/NDL-PCB Check Standard

Mixture

Ingredient name	%	CAS number
Dioxin/Furan/DL-PCB Check Standard		
nonane	≥90	111-84-2
2,2,4-trimethylpentane	≤0.3	540-84-1
DL/NDL-PCB Check Standard		
2,2,4-trimethylpentane	≥90	540-84-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

11	Description of	nococcary firet a	aid maacurac

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 selfcontained 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 selfcontained 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

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Section 4. First aid measures

Skin contact : Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Ingestion : Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

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.

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.

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.

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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.

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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.

4.2 Most important symptoms/effects, acute and delayed Potential acute health effects

Eye contact : Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Inhalation : Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Causes serious eye irritation.

No known significant effects or critical hazards. Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness

or dizziness. May cause respiratory irritation. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

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Section 4. First aid measures

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

Standard

DL/NDL-PCB Check Standard Causes skin irritation.

Dioxin/Furan/DL-PCB Check Can cause central nervous system (CNS) Ingestion

depression. May be fatal if swallowed and enters Standard

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

: Dioxin/Furan/DL-PCB Check Eye contact Adverse symptoms may include the following:

Standard

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 Adverse symptoms may include the following:

Standard

respiratory tract irritation

coughing

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 Adverse symptoms may include the following:

Standard

irritation redness

DL/NDL-PCB Check Standard Adverse symptoms may include the following:

> irritation redness

Ingestion Dioxin/Furan/DL-PCB Check Adverse symptoms may include the following:

Standard

nausea or vomiting

DL/NDL-PCB Check Standard Adverse symptoms may include the following:

nausea or vomiting

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Dioxin/Furan/DL-PCB Check Treat symptomatically. Contact poison treatment

> Standard 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 No specific treatment.

Standard

DL/NDL-PCB Check Standard No specific treatment.

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Section 4. First aid measures

Protection of first-aiders

: Dioxin/Furan/DL-PCB Check Standard

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. 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

: Dioxin/Furan/DL-PCB Check Standard

DL/NDL-PCB Check Standard

Unsuitable extinguishing media

: Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Use dry chemical, CO₂, water spray (fog) or foam.

Use dry chemical, CO2, water spray (fog) or foam.

Flammable liquid and vapor. Runoff to sewer may

Do not use water jet.

Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

: Dioxin/Furan/DL-PCB Check Standard

DL/NDL-PCB Check Standard

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. Highly flammable liquid and vapor. 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 vapor/gas is heavier than air and will spread along the ground. Vapors 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 thermal decomposition 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

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Section 5. Fire-fighting measures

Special protective actions 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.

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.

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 vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective 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 vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

DL/NDL-PCB Check Standard

For emergency responders : Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

If specialized 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". If specialized 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".

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Section 6. Accidental release measures

6.2 Environmental precautions

: Dioxin/Furan/DL-PCB Check Standard

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

Avoid dispersal of spilled material and runoff and

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 materials for containment and cleaning up

Methods for cleaning up

: Dioxin/Furan/DL-PCB Check Standard

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. 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.

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 breathe vapor or mist. Do not swallow. Avoid contact with eyes, skin and clothing. 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 explosionproof 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 vapor 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

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Section 7. Handling and storage

Advice on general occupational hygiene

: Dioxin/Furan/DL-PCB Check Standard

DL/NDL-PCB Check Standard

7.2 Conditions for safe storage, including any incompatibilities

: Dioxin/Furan/DL-PCB Check Standard

DL/NDL-PCB Check Standard

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.

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. 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.

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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

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Section 7. Handling and storage

Recommendations

solutions

Industrial sector specific

: Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Industrial applications, Professional applications.

Industrial applications, Professional applications.

Not available.

Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Dioxin/Furan/DL-PCB Check Standard	
nonane	ACGIH TLV (United States, 1/2024). TWA: 200 ppm 8 hours. TWA: 1050 mg/m³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 200 ppm 8 hours. TWA: 1050 mg/m³ 8 hours. NIOSH REL (United States, 10/2020). TWA: 200 ppm 10 hours. TWA: 1050 mg/m³ 10 hours. CAL OSHA PEL (United States, 5/2018). TWA: 1050 mg/m³ 8 hours. TWA: 200 ppm 8 hours.
2,2,4-trimethylpentane	ACGIH TLV (United States, 1/2024). [Octane] TWA: 300 ppm 8 hours.
DL/NDL-PCB Check Standard	
2,2,4-trimethylpentane	ACGIH TLV (United States, 1/2024). [Octane] TWA: 300 ppm 8 hours.

Biological exposure indices

No exposure indices known.

8.2 Exposure controls

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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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.

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.

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Section 8. Exposure controls/personal protection

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 antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Dioxin/Furan/DL-PCB Check Liquid. Standard DL/NDL-PCB Check Standard Liquid. Color : Dioxin/Furan/DL-PCB Check Not available. Standard DL/NDL-PCB Check Standard Not available. Dioxin/Furan/DL-PCB Check Not available. Odor Standard DL/NDL-PCB Check Standard Not available. : Dioxin/Furan/DL-PCB Check Not available. **Odor threshold** Standard DL/NDL-PCB Check Standard Not available. pН Dioxin/Furan/DL-PCB Check Not available. Standard DL/NDL-PCB Check Standard Not available. **Melting point/freezing point** : Dioxin/Furan/DL-PCB Check -53°C (-63.4°F)

Boiling point, initial boiling

point, and boiling range

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Flash point

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DL/NDL-PCB Check Standard -107°C (-160.6°F)

: Dioxin/Furan/DL-PCB Check 151°C (303.8°F)
Standard

DL/NDL-PCB Check StandardDioxin/Furan/DL-PCB Check

Standard
DL/NDL-PCB Check Standard

Closed cup: -12°C (10.4°F)

Closed cup: 31°C (87.8°F)

98 to 99°C (208.4 to 210.2°F)

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Lower and upper explosion

limit/flammability limit

Relative density

Section 9. Physical and chemical properties and safety characteristics

: Dioxin/Furan/DL-PCB Check **Evaporation rate** Not available.

Standard

DL/NDL-PCB Check Standard Not available. Dioxin/Furan/DL-PCB Check Not applicable.

Flammability Standard

> DL/NDL-PCB Check Standard Not applicable. Dioxin/Furan/DL-PCB Check Lower: 0.87%

Standard

Upper: 2.9% DL/NDL-PCB Check Standard Lower: 1%

Upper: 6%

: DL/NDL-PCB Check Standard 5.5 kPa (41 mm Hg) Vapor pressure

	Vapor Pressure at 20°C			Vapor pressure at 50°C		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
Dioxin/Furan/DL- PCB Check Standard						
nonane	3.15026	0.42	-	18.076	2.4	-

Relative vapor density : Dioxin/Furan/DL-PCB Check Not available.

Standard

DL/NDL-PCB Check Standard 3.94 [Air = 11]: Dioxin/Furan/DL-PCB Check Not available.

Standard

DL/NDL-PCB Check Standard Not available.

Solubility(ies) Media Result

> Dioxin/Furan/DL-PCB Check Standard water Insoluble

> DL/NDL-PCB Check Standard water Insoluble

Partition coefficient: n-Dioxin/Furan/DL-PCB Check

octanol/water Standard

DL/NDL-PCB Check Standard

Not applicable.

Dioxin/Furan/DL-PCB Check **Auto-ignition temperature**

Not applicable. 205°C (401°F)

Standard

DL/NDL-PCB Check Standard

396°C (744.8°F)

Decomposition temperature

Dioxin/Furan/DL-PCB Check

Not available.

Standard

DL/NDL-PCB Check Standard

: Dioxin/Furan/DL-PCB Check **Viscosity**

Not available. DL/NDL-PCB Check Standard Not available.

Standard

Not available.

Particle characteristics

Median particle size

: Dioxin/Furan/DL-PCB Check

Not applicable.

Standard

DL/NDL-PCB Check Standard Not applicable.

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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 pressurize, 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 pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor 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.

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 Vapor LC50 Inhalation Vapor LD50 Oral	Rat Rat Rat - Male, Female	17000 mg/m³ 3200 ppm >5000 mg/kg	4 hours 4 hours -
2,2,4-trimethylpentane	LC50 Inhalation Vapor LD50 Oral	Rat - Male, Female Rat - Male, Female	>33.52 mg/l >5000 mg/kg	4 hours
DL/NDL-PCB Check Standard		i emale		

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Section 11. Toxicological information

2,2,4-trimethylpentane	LC50 Inhalation Vapor	Rat - Male, Female	>33.52 mg/l	4 hours
	LD50 Oral		>5000 mg/kg	-

Irritation/Corrosion

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

Sensitization

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)

Name	Category	Route of exposure	Target organs
Dioxin/Furan/DL-PCB Check Standard			
nonane	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
2,2,4-trimethylpentane	Category 3	-	Narcotic effects
DL/NDL-PCB Check Standard			
2,2,4-trimethylpentane	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	3 3 3	Route of exposure	Target organs
Dioxin/Furan/DL-PCB Check Standard			
nonane	Category 2		central nervous system (CNS)

Aspiration hazard

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

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Section 11. Toxicological information

Information on the likely routes of exposure

: Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Routes of entry anticipated: Oral, Dermal,

Inhalation, Eyes.

Routes of entry anticipated: Oral, Dermal,

Inhalation, Eyes.

Causes serious eye irritation.

Potential acute health effects

Eye contact

Inhalation

: Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

DL/NDL-PCB Check Standard

Dioxin/Furan/DL-PCB Check Standard

Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness

No known significant effects or critical hazards.

or dizziness. May cause respiratory irritation. Can cause central nervous system (CNS)

depression. May cause drowsiness or dizziness.

Skin contact

Ingestion

: Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Causes skin irritation. Causes skin irritation.

Dioxin/Furan/DL-PCB Check

Standard

Can cause central nervous system (CNS)

depression. May be fatal if swallowed and enters

DL/NDL-PCB Check Standard

Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters

airways.

Symptoms related to the physical, chemical and toxicological characteristics

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:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatique 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

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Section 11. Toxicological information

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

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : N

: Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

General : Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Carcinogenicity : Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Mutagenicity : Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Reproductive toxicity : Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

May cause damage to organs through prolonged or

repeated exposure.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	- 1 di (111 3 1	20111101	(gases)	(vapors)	Inhalation (dusts and mists) (mg/ I)
Dioxin/Furan/DL-PCB Check Standard Dioxin/Furan/DL-PCB Check Standard nonane	N/A N/A		N/A N/A	17.0 17	N/A N/A

Other information

Dioxin/Furan/DL-PCB Check

Standard

DL/NDL-PCB Check Standard

Adverse symptoms may include the following: Prolonged or repeated contact can defat the skin

and lead to irritation, cracking and/or dermatitis.

Adverse symptoms may include the following:

Repeated exposure may cause skin dryness or

cracking.

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Section 12. Ecological information

12.1 Toxicity

Not available.

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Dioxin/Furan/DL-PCB Check Standard			
nonane 2,2,4-trimethylpentane	-	-	Readily Inherent
DL/NDL-PCB Check Standard			
2,2,4-trimethylpentane	-	-	Inherent

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Dioxin/Furan/DL-PCB Check Standard			
nonane 2,2,4-trimethylpentane	5.65 4.08	105 231	Low Low
DL/NDL-PCB Check Standard			
2,2,4-trimethylpentane	4.08	231	Low

12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

12.5 Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods

: The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

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Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / : Not regulated.

IATA

Additional information

Remarks: De minimis quantities

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.

Transport in bulk according: Not available.

to IMO instruments

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal regulations

: TSCA 4(a) final test rules: nonane

TSCA 5(a)2 final significant new use rules: 1,1'-Biphenyl, 2,2',4,4',5,5'-hexachloro-TSCA 6 final risk management: Biphenyl, 2,3,3',4,4'-pentachloro-; 1,1'-Biphenyl, 2,3', 4,4',5-pentachloro-; Biphenyl, 3,3',4,4'-tetrachloro-; Biphenyl, 3,3',4,4',5,5'-hexachloro-; 1,1'-Biphenyl, 3,3',4,4',5-pentachloro-; 1,1'-Biphenyl, 3,4,4',5-tetrachloro-; 1,1'-Biphenyl, 2,2',4,4',5,5'-hexachloro-; 2,2',3,4,4',5'-Hexachlorobiphenyl; 1,1'-Biphenyl, 2,2',3,4,4',5,5'heptachloro-; 2,2',5,5'-Tetrachlorobiphenyl; 1,1'-Biphenyl, 2,2',4,5,5'-pentachloro-; 1,1'-Biphenyl, 2,3,3',4,4',5-hexachloro-; 1,1'-Biphenyl, 2,3,3',4,4',5,5'-heptachloro-; 2,3',4,4', 5,5'-hexachlorobiphenyl; 2,3',4,4',5'-Pentachloro-1,1'-biphenyl; 2,3,3',4,4',5'-

hexachlorobiphenyl; 2,4,4'-trichlorobiphenyl; 1,1'-Biphenyl, 2,3,4,4',5-pentachloro-

TSCA 8(a) PAIR: nonane

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

TSCA 12(b) one-time export: nonane

Clean Water Act (CWA) 307: Biphenyl, 2,3,3',4,4'-pentachloro-; 1,1'-Biphenyl, 2,3',4,4', 5-pentachloro-; Biphenyl, 3,3',4,4'-tetrachloro-; Biphenyl, 3,3',4,4',5,5'-hexachloro-; 1,1'-Biphenyl, 3,3',4,4',5-pentachloro-; 1,1'-Biphenyl, 3,4,4',5-tetrachloro-; 1,1'-Biphenyl, 2,2', 4,4',5,5'-hexachloro-; 2,2',3,4,4',5'-Hexachlorobiphenyl; 1,1'-Biphenyl, 2,2',3,4,4',5,5'heptachloro-; 2,2',5,5'-Tetrachlorobiphenyl; 1,1'-Biphenyl, 2,2',4,5,5'-pentachloro-; 1,1'-Biphenyl, 2,3,3',4,4',5-hexachloro-; 1,1'-Biphenyl, 2,3,3',4,4',5,5'-heptachloro-; 2,3',4,4', 5,5'-hexachlorobiphenyl; 2,3',4,4',5'-Pentachloro-1,1'-biphenyl; 2,3,3',4,4',5'hexachlorobiphenyl; 2,4,4'-trichlorobiphenyl; 1,1'-Biphenyl, 2,3,4,4',5-pentachloro-; 2,3,7,8-tetrachlorodibenzo[b,e][1,4]dioxin

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Clean Water Act (CWA) 311: Biphenyl, 2,3,3',4,4'-pentachloro-; 1,1'-Biphenyl, 2,3',4,4', 5-pentachloro-; Biphenyl, 3,3',4,4'-tetrachloro-; Biphenyl, 3,3',4,4',5,5'-hexachloro-; 1,1'-Biphenyl, 3,3',4,4',5-pentachloro-; 1,1'-Biphenyl, 3,4,4',5-tetrachloro-; 1,1'-Biphenyl, 2,2', 4,4',5,5'-hexachloro-; 2,2',3,4,4',5'-Hexachlorobiphenyl; 1,1'-Biphenyl, 2,2',3,4,4',5,5'heptachloro-; 2,2',5,5'-Tetrachlorobiphenyl; 1,1'-Biphenyl, 2,2',4,5,5'-pentachloro-; 1,1'-Biphenyl, 2,3,3',4,4',5-hexachloro-; 1,1'-Biphenyl, 2,3,3',4,4',5,5'-heptachloro-; 2,3',4,4', 5,5'-hexachlorobiphenyl; 2,3',4,4',5'-Pentachloro-1,1'-biphenyl; 2,3,3',4,4',5'hexachlorobiphenyl; 2,4,4'-trichlorobiphenyl; 1,1'-Biphenyl, 2,3,4,4',5-pentachloro-

Clean Air Act Section 112

(b) Hazardous Air **Pollutants (HAPs)**

Clean Air Act Section 602

Class I Substances

: Not listed

: Listed

Clean Air Act Section 602

Class II Substances

: Not listed

DEA List I Chemicals

(Precursor Chemicals)

: Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

 Dioxin/Furan/DL-PCB Check Standard FLAMMABLE LIQUIDS - Category 3 Classification

DL/NDL-PCB Check Standard

ACUTE TOXICITY (inhalation) - Category 4

SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

SPECIFIC TARGET ORĞAN TOXICITY (SINGLE EXPOSURE)

(Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(Narcotic effects) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED

EXPOSURE) - Category 2

ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 2

SKIN IRRITATION - Category 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1

Composition/information on ingredients

Name	%	Classification
Dioxin/Furan/DL-PCB Check Standard		
nonane	≥90	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Static-accumulating flammable liquid HNOC - Defatting irritant
DL/NDL-PCB Check Standard		

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2,2,4-trimethylpentane	≥90	FLAMMABLE LIQUIDS - Category 2
, ,		SKIN IRRITATION - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -
		Category 3
		ASPIRATION HAZARD - Category 1
		HNOC - Static-accumulating flammable liquid

SARA 313

	Product name	CAS number	%
Form R - Reporting	Dioxin/Furan/DL-PCB Check Standard		
requirements	Octachlorodibenzo-p-dioxin	3268-87-9	<0.1
requirements	Dibenzofuran, octachloro-	39001-02-0	<0.1
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	<0.1
	Biphenyl, 3,3',4,4'-tetrachloro-	32598-13-3	<0.1
	Biphenyl, 2,3,3',4,4'-pentachloro-	32598-14-4	<0.005
	Biphenyl, 3,3',4,4',5,5'-hexachloro-	32774-16-6	<0.005
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	<0.1
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	<0.1
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	<0.1 ≤0.1
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	<0.1
	2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	<0.1
	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	<0.1
	1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	<0.1
	1,1'-Biphenyl, 3,3',4,4',5-pentachloro-	57465-28-8	<0.005
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	≤0.1
	2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	≤0.1
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	<0.1
	1,1'-Biphenyl, 3,4,4',5-tetrachloro-	70362-50-4	<0.005
	1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	<0.1
	1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	<0.1
	2,3,7,8-tetrachlorodibenzo[b,e][1,4]dioxin	1746-01-6	<0.1
	2,3,7,8-TETRACHLORO DIBENZOFURAN	51207-31-9	<0.1
	2,0,1,0 12110 (01)201(0 2)221(20) 010 (1)	0.1207 0.10	0
	DL/NDL-PCB Check Standard		
	1,1'-Biphenyl, 2,3',4,4',5-pentachloro-	31508-00-6	<0.005
	Biphenyl, 2,3,3',4,4'-pentachloro-	32598-14-4	<0.005
	1,1'-Biphenyl, 2,2',4,4',5,5'-hexachloro-	35065-27-1	<0.005
	2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	<0.005
	1,1'-Biphenyl, 2,2',3,4,4',5,5'-heptachloro-	35065-29-3	<0.005
	2,2',5,5'-Tetrachlorobiphenyl	35693-99-3	<0.005
	1,1'-Biphenyl, 2,2',4,5,5'-pentachloro-	37680-73-2	<0.005
	1,1'-Biphenyl, 2,3,3',4,4',5-hexachloro-	38380-08-4	<0.005
	1,1'-Biphenyl, 2,3,3',4,4',5,5'-heptachloro-	39635-31-9	<0.1
	2,3',4,4',5,5'-hexachlorobiphenyl	52663-72-6	<0.005
	2,3',4,4',5'-Pentachloro-1,1'-biphenyl	65510-44-3	<0.005
	2,3,3',4,4',5'-hexachlorobiphenyl	69782-90-7	<0.005
	2,4,4'-trichlorobiphenyl	7012-37-5	<0.1
	1,1'-Biphenyl, 2,3,4,4',5-pentachloro-	74472-37-0	<0.005
	Dioxin/Furan/DL-PCB Check Standard	17712-01-0	10.000
Supplier notification	,	2260 07 0	-0.1
	Octachlorodibenzo-p-dioxin	3268-87-9	<0.1
	Dibenzofuran, octachloro-	39001-02-0	<0.1
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	<0.1
	Biphenyl, 3,3',4,4'-tetrachloro-	32598-13-3	<0.1
	Biphenyl, 2,3,3',4,4'-pentachloro-	32598-14-4	<0.005
	Biphenyl, 3,3',4,4',5,5'-hexachloro-	32774-16-6	<0.005
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	<0.1
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	<0.1
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	≤0.1
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	<0.1
	2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	<0.1
I	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	<0.1
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1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	<0.1
1,1'-Biphenyl, 3,3',4,4',5-pentachloro-	57465-28-8	<0.005
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	≤0.1
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	≤0.1
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	<0.1
1,1'-Biphenyl, 3,4,4',5-tetrachloro-	70362-50-4	<0.005
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	<0.1
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	<0.1
2,3,7,8-tetrachlorodibenzo[b,e][1,4]dioxin	1746-01-6	<0.1
2,3,7,8-TETRACHLORO DIBENZOFURAN	51207-31-9	<0.1
DL/NDL-PCB Check Standard		
1,1'-Biphenyl, 2,3',4,4',5-pentachloro-	31508-00-6	<0.005
Biphenyl, 2,3,3',4,4'-pentachloro-	32598-14-4	<0.005
1,1'-Biphenyl, 2,2',4,4',5,5'-hexachloro-	35065-27-1	<0.005
2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	<0.005
1,1'-Biphenyl, 2,2',3,4,4',5,5'-heptachloro-	35065-29-3	<0.005
2,2',5,5'-Tetrachlorobiphenyl	35693-99-3	<0.005
1,1'-Biphenyl, 2,2',4,5,5'-pentachloro-	37680-73-2	<0.005
1,1'-Biphenyl, 2,3,3',4,4',5-hexachloro-	38380-08-4	<0.005
	39635-31-9	<0.1
2,3',4,4',5,5'-hexachlorobiphenyl	52663-72-6	<0.005
	65510-44-3	<0.005
2,3,3',4,4',5'-hexachlorobiphenyl	69782-90-7	<0.005
2,4,4'-trichlorobiphenyl	7012-37-5	<0.1
1,1'-Biphenyl, 2,3,4,4',5-pentachloro-	74472-37-0	<0.005

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

: The following components are listed: ISOOCTANE; NONANE

New York

: The following components are listed: 2,2,4-Trimethylpentane

New Jersey

: The following components are listed: ISOOCTANE; NONANE

Pennsylvania

: The following components are listed: PENTANE, 2,2,4-TRIMETHYL-; NONANE

California Prop. 65



⚠ WARNING: This product can expose you to chemicals including Polychlorinated biphenyls, Polychlorinated biphenyls and 2,3,7,8-Tetrachlorodibenzo-p-dioxin, which are known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Polychlorinated dibenzo-p-dioxins, Polychlorinated dibenzo-p-dioxins, Polychlorinated dibenzo-p-dioxins, Polychlorinated dibenzo-p-dioxins, Polychlorinated dibenzo-p-dioxins, Polychlorinated dibenzo-p-dioxins, Polychlorinated dibenzofurans, Polychlorinated dibenzofurans, Polychlorinated dibenzofurans, Polychlorinated dibenzofurans, Polychlorinated dibenzo-p-dioxins, Polychlorinated dibenzofurans, Polychlorinated dibenzofurans, Polychlorinated dibenzofurans, Polychlorinated dibenzofurans and Polychlorinated dibenzofurans, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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Ingredient name	No significant risk level	Maximum acceptable dosage level
Dioxin/Furan/DL-PCB Check Standard		
Polychlorinated dibenzo-p-dioxins	-	-
Polychlorinated dibenzofurans	-	-
Polychlorinated dibenzo-p-dioxins	-	-
Polychlorinated biphenyls	Yes.	-
Polychlorinated biphenyls	Yes.	-
Polychlorinated biphenyls	Yes.	-
Polychlorinated dibenzo-p-dioxins	-	-
Polychlorinated dibenzo-p-dioxins	-	-
Polychlorinated dibenzo-p-dioxins	-	-
Polychlorinated dibenzofurans	-	-
Polychlorinated dibenzofurans	-	_
Polychlorinated dibenzofurans	-	_
Polychlorinated dibenzofurans	-	_
Polychlorinated biphenyls	Yes.	_
Polychlorinated dibenzo-p-dioxins	-	_
Polychlorinated dibenzofurans	-	_
Polychlorinated dibenzofurans	-	_
Polychlorinated biphenyls	Yes.	_
Polychlorinated dibenzofurans	-	_
Polychlorinated dibenzofurans	-	_
2,3,7,8-Tetrachlorodibenzo-p-dioxin	Yes.	_
Polychlorinated dibenzofurans	-	-
DL/NDL-PCB Check Standard		
Polychlorinated biphenyls	Yes.	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

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

Not listed.

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Inventory list

Australia : Not determined.
Canada : Not determined.
China : Not determined.

Japan : Japan inventory (CSCL): Not determined.

Japan inventory (ISHL): Not determined.

New Zealand : Not determined. **Philippines** : Not determined. Republic of Korea : Not determined. **Taiwan** : Not determined. **Thailand** : Not determined. **Turkey** : Not determined. **United States** : Not determined. **Viet Nam** : Not determined.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
Dioxin/Furan/DL-PCB Check Standard	
FLAMMABLE LIQUIDS - Category 3	On basis of test data
ACUTE TOXICITY (inhalation) - Category 4	Calculation method
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract	Calculation method
irritation) - Category 3	
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Expert judgment
AQUATIC HAZARD (ACUTE) - Category 1	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 1	Calculation method
DL/NDL-PCB Check Standard	
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN IRRITATION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -	Calculation method
Category 3	
ASPIRATION HAZARD - Category 1	Expert judgment
AQUATIC HAZARD (ACUTE) - Category 1	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 1	Calculation method

History

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Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

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Section 16. Other information

as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available UN = United Nations

▼ Indicates information that has changed from previously issued version.

Notice to reader

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