

SAFETY DATA SHEET



GC - MS Multi-Component Checkout Sample, Part Number 5185-5840

Section 1. Identification

1.1 Product identifier

Product name : GC - MS Multi-Component Checkout Sample, Part Number 5185-5840
Part no. (chemical kit) : 5185-5840
Part no. : Benzophenone in isooctane, 100 pg/µl 8500-5440-1
 OFN in Isooctane, 1 pg/µl 8500-5441-1
 GC/MS Checkout Sample, 10 ng/ul 05970-60045-1
Validation date : 4/22/2024

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

Identified uses : Reagents and Standards for Analytical Chemistry Laboratory Use
 Benzophenone in isooctane, 100 pg/µl 1 x 1 ml
 OFN in Isooctane, 1 pg/µl 2 x 1 ml
 GC/MS Checkout Sample, 10 ng/ul 1 x 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 : Benzophenone in isooctane, 100 pg/µl This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 OFN in Isooctane, 1 pg/µl This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 GC/MS Checkout Sample, 10 ng/ul This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

Benzophenone in isooctane, 100 pg/µl
 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
 H410 AQUATIC HAZARD (LONG-TERM) - Category 1

OFN in Isooctane, 1 pg/µl
 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
 H410 AQUATIC HAZARD (LONG-TERM) - Category 1

Section 2. Hazards identification

GC/MS Checkout Sample, 10

ng/ul	
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
H410	AQUATIC HAZARD (LONG-TERM) - Category 1

2.2 GHS label elements

Hazard pictograms

: Benzophenone in isooctane, 100 pg/μl



OFN in Isooctane, 1 pg/μl



GC/MS Checkout Sample, 10 ng/ul



Signal word

: Benzophenone in isooctane, 100 pg/μl Danger
 OFN in Isooctane, 1 pg/μl Danger
 GC/MS Checkout Sample, 10 ng/ul Danger

Hazard statements

: Benzophenone in isooctane, 100 pg/μl 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.

OFN in Isooctane, 1 pg/μl 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.

GC/MS Checkout Sample, 10 ng/ul 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

Section 2. Hazards identification

Prevention

: Benzophenone in isooctane, 100 pg/μl

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.

P273 - Avoid release to the environment.

P261 - Avoid breathing vapor.

P264 - Wash thoroughly after handling.

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.

P273 - Avoid release to the environment.

P261 - Avoid breathing vapor.

P264 - Wash thoroughly after handling.

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.

P273 - Avoid release to the environment.

P261 - Avoid breathing vapor.

P264 - Wash thoroughly after handling.

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.

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.

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.

OFN in Isooctane, 1 pg/μl

GC/MS Checkout Sample, 10 ng/ul

Response

: Benzophenone in isooctane, 100 pg/μl

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.

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P301 + P310, P331 - IF SWALLOWED:

Immediately call a POISON CENTER or doctor.

OFN in Isooctane, 1 pg/μl

GC/MS Checkout Sample, 10 ng/ul

Section 2. Hazards identification

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

: Benzophenone in isooctane, 100 pg/µl	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
OFN in Isooctane, 1 pg/µl	P403 + P235 - Keep cool. P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
GC/MS Checkout Sample, 10 ng/ul	P403 + P235 - Keep cool. P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
	P403 + P235 - Keep cool.

Disposal

: Benzophenone in isooctane, 100 pg/µl	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
OFN in Isooctane, 1 pg/µl	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
GC/MS Checkout Sample, 10 ng/ul	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Benzophenone in isooctane, 100 pg/µl	None known.
OFN in Isooctane, 1 pg/µl	None known.
GC/MS Checkout Sample, 10 ng/ul	None known.

2.3 Other hazards

Hazards not otherwise classified

: Benzophenone in isooctane, 100 pg/µl	None known.
OFN in Isooctane, 1 pg/µl	None known.
GC/MS Checkout Sample, 10 ng/ul	None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Benzophenone in isooctane, 100 pg/µl	Mixture
OFN in Isooctane, 1 pg/µl	Mixture
GC/MS Checkout Sample, 10 ng/ul	Mixture

Ingredient name	%	CAS number
Benzophenone in isooctane, 100 pg/µl		
2,2,4-trimethylpentane	≥90	540-84-1
OFN in Isooctane, 1 pg/µl		
2,2,4-trimethylpentane	≥90	540-84-1
GC/MS Checkout Sample, 10 ng/ul		
2,2,4-trimethylpentane	≥90	540-84-1

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

Section 3. Composition/information on ingredients

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

4.1 Description of necessary first aid measures

Eye contact	: Benzophenone in isooctane, 100 pg/µl	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.
	OFN in Isooctane, 1 pg/µl	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.
	GC/MS Checkout Sample, 10 ng/ul	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	: Benzophenone in isooctane, 100 pg/µl	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.
	OFN in Isooctane, 1 pg/µl	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.
	GC/MS Checkout Sample, 10 ng/ul	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

Section 4. First aid measures

Skin contact

: Benzophenone in isooctane, 100 pg/μl

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.

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.

OFN in Isooctane, 1 pg/μl

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.

GC/MS Checkout Sample, 10 ng/ul

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.

Ingestion

: Benzophenone in isooctane, 100 pg/μl

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.

OFN in Isooctane, 1 pg/μl

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.

GC/MS Checkout Sample, 10 ng/ul

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

Section 4. First aid measures

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	: Benzophenone in isooctane, 100 pg/μl	No known significant effects or critical hazards.
	OFN in Isooctane, 1 pg/μl	No known significant effects or critical hazards.
	GC/MS Checkout Sample, 10 ng/ul	No known significant effects or critical hazards.
Inhalation	: Benzophenone in isooctane, 100 pg/μl	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
	OFN in Isooctane, 1 pg/μl	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
	GC/MS Checkout Sample, 10 ng/ul	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: Benzophenone in isooctane, 100 pg/μl	Causes skin irritation.
	OFN in Isooctane, 1 pg/μl	Causes skin irritation.
	GC/MS Checkout Sample, 10 ng/ul	Causes skin irritation.
Ingestion	: Benzophenone in isooctane, 100 pg/μl	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
	OFN in Isooctane, 1 pg/μl	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
	GC/MS Checkout Sample, 10 ng/ul	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact	: Benzophenone in isooctane, 100 pg/μl	Adverse symptoms may include the following: pain or irritation watering redness
	OFN in Isooctane, 1 pg/μl	Adverse symptoms may include the following: pain or irritation watering redness
	GC/MS Checkout Sample, 10 ng/ul	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Benzophenone in isooctane, 100 pg/μl	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	OFN in Isooctane, 1 pg/μl	Adverse symptoms may include the following: nausea or vomiting headache

Section 4. First aid measures

		drowsiness/fatigue dizziness/vertigo unconsciousness
	GC/MS Checkout Sample, 10 ng/ul	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Benzophenone in isooctane, 100 pg/μl	Adverse symptoms may include the following: irritation redness
	OFN in Isooctane, 1 pg/μl	Adverse symptoms may include the following: irritation redness
	GC/MS Checkout Sample, 10 ng/ul	Adverse symptoms may include the following: irritation redness
Ingestion	: Benzophenone in isooctane, 100 pg/μl	Adverse symptoms may include the following: nausea or vomiting
	OFN in Isooctane, 1 pg/μl	Adverse symptoms may include the following: nausea or vomiting
	GC/MS Checkout Sample, 10 ng/ul	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	: Benzophenone in isooctane, 100 pg/μl	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	OFN in Isooctane, 1 pg/μl	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	GC/MS Checkout Sample, 10 ng/ul	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: Benzophenone in isooctane, 100 pg/μl	No specific treatment.
	OFN in Isooctane, 1 pg/μl	No specific treatment.
	GC/MS Checkout Sample, 10 ng/ul	No specific treatment.
Protection of first-aiders	: Benzophenone in isooctane, 100 pg/μl	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.
	OFN in Isooctane, 1 pg/μl	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.
	GC/MS Checkout Sample, 10 ng/ul	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.

Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Benzophenone in isooctane, 100 pg/μl	Use dry chemical, CO ₂ , water spray (fog) or foam.
	OFN in Isooctane, 1 pg/μl	Use dry chemical, CO ₂ , water spray (fog) or foam.
	GC/MS Checkout Sample, 10 ng/ul	Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Benzophenone in isooctane, 100 pg/μl	Do not use water jet.
	OFN in Isooctane, 1 pg/μl	Do not use water jet.
	GC/MS Checkout Sample, 10 ng/ul	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	: Benzophenone in isooctane, 100 pg/μl	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.
	OFN in Isooctane, 1 pg/μl	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.
	GC/MS Checkout Sample, 10 ng/ul	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.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products	: Benzophenone in isooctane, 100 pg/μl	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	OFN in Isooctane, 1 pg/μl	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	GC/MS Checkout Sample, 10 ng/ul	Decomposition products may include the following materials: carbon dioxide carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters	: Benzophenone in isooctane, 100 pg/μl	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.
	OFN in Isooctane, 1 pg/μl	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.
	GC/MS Checkout Sample, 10 ng/ul	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	: Benzophenone in isooctane, 100 pg/μl	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	OFN in Isooctane, 1 pg/μl	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	GC/MS Checkout Sample, 10 ng/ul	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	: Benzophenone in isooctane, 100 pg/μl	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.
	OFN in Isooctane, 1 pg/μl	No action shall be taken involving any personal

Section 6. Accidental release measures

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.

GC/MS Checkout Sample, 10 ng/ul

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.

For emergency responders : Benzophenone in isooctane, 100 pg/μl

OFN in Isooctane, 1 pg/μl

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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GC/MS Checkout Sample, 10 ng/ul

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".

6.2 Environmental precautions

: Benzophenone in isooctane, 100 pg/μl

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.

OFN in Isooctane, 1 pg/μl

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.

GC/MS Checkout Sample, 10 ng/ul

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

Section 6. Accidental release measures

Methods for cleaning up	: Benzophenone in isooctane, 100 pg/ μ l	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.
	OFN in Isooctane, 1 pg/ μ l	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.
	GC/MS Checkout Sample, 10 ng/ μ l	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	: Benzophenone in isooctane, 100 pg/ μ l	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 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.
	OFN in Isooctane, 1 pg/ μ l	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 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

Section 7. Handling and storage

	GC/MS Checkout Sample, 10 ng/ul	<p>container.</p> <p>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 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.</p>
Advice on general occupational hygiene	: Benzophenone in isooctane, 100 pg/μl	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.
	OFN in Isooctane, 1 pg/μl	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.
	GC/MS Checkout Sample, 10 ng/ul	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	: Benzophenone in isooctane, 100 pg/μl	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.
	OFN in Isooctane, 1 pg/μl	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

Section 7. Handling and storage

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.

GC/MS Checkout Sample, 10 ng/ul 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)

Recommendations	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	Not available. Not available. Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Benzophenone in isooctane, 100 pg/μl 2,2,4-trimethylpentane	ACGIH TLV (United States, 1/2023). [Octane] TWA: 300 ppm 8 hours.
OFN in Isooctane, 1 pg/μl 2,2,4-trimethylpentane	ACGIH TLV (United States, 1/2023). [Octane] TWA: 300 ppm 8 hours.
GC/MS Checkout Sample, 10 ng/ul 2,2,4-trimethylpentane	ACGIH TLV (United States, 1/2023). [Octane] TWA: 300 ppm 8 hours.

Biological exposure indices

No exposure indices known.

Section 8. Exposure controls/personal protection

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.

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.

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 : Benzophenone in isooctane, 100 pg/μl Liquid.
OFN in Isooctane, 1 pg/μl Liquid.
GC/MS Checkout Sample, 10 ng/ul Liquid.

Color : Benzophenone in isooctane, 100 pg/μl Light
OFN in Isooctane, 1 pg/μl Colorless.
GC/MS Checkout Sample, 10 ng/ul Clear. / Colorless.

Section 9. Physical and chemical properties and safety characteristics

Odor	: Benzophenone in isooctane, 100 pg/μl Gasoline-like [Strong] OFN in Isooctane, 1 pg/μl Gasoline-like [Strong] GC/MS Checkout Sample, 10 ng/ul Gasoline-like
Odor threshold	: Benzophenone in isooctane, 100 pg/μl Not available. OFN in Isooctane, 1 pg/μl Not available. GC/MS Checkout Sample, 10 ng/ul Not available.
pH	: Benzophenone in isooctane, 100 pg/μl Not available. OFN in Isooctane, 1 pg/μl Not available. GC/MS Checkout Sample, 10 ng/ul Not available.
Melting point/freezing point	: Benzophenone in isooctane, 100 pg/μl -107°C (-160.6°F) OFN in Isooctane, 1 pg/μl -107°C (-160.6°F) GC/MS Checkout Sample, 10 ng/ul -107°C (-160.6°F)
Boiling point, initial boiling point, and boiling range	: Benzophenone in isooctane, 100 pg/μl 99.2°C (210.6°F) OFN in Isooctane, 1 pg/μl 99.2°C (210.6°F) GC/MS Checkout Sample, 10 ng/ul 99.2°C (210.6°F)
Flash point	: Benzophenone in isooctane, 100 pg/μl Closed cup: -18 to 23°C (-0.4 to 73.4°F) [Based on solvent.] Open cup: 4.5°C (40.1°F) OFN in Isooctane, 1 pg/μl Closed cup: -18 to 23°C (-0.4 to 73.4°F) [Based on solvent.] Open cup: 4.5°C (40.1°F) GC/MS Checkout Sample, 10 ng/ul Closed cup: -18 to 23°C (-0.4 to 73.4°F) Open cup: 4.5°C (40.1°F)
Evaporation rate	: Benzophenone in isooctane, 100 pg/μl 3.6 (butyl acetate = 1) OFN in Isooctane, 1 pg/μl Not available. GC/MS Checkout Sample, 10 ng/ul Not available.
Flammability	: Benzophenone in isooctane, 100 pg/μl Not applicable. OFN in Isooctane, 1 pg/μl Not applicable. GC/MS Checkout Sample, 10 ng/ul Not applicable.
Lower and upper explosion limit/flammability limit	: Benzophenone in isooctane, 100 pg/μl Lower: 1.1% Upper: <=13% OFN in Isooctane, 1 pg/μl Lower: 1.1% Upper: 6% GC/MS Checkout Sample, 10 ng/ul Lower: 1.1% Upper: 6%
Vapor pressure	: Benzophenone in isooctane, 100 pg/μl 5.5 kPa (41 mm Hg) OFN in Isooctane, 1 pg/μl 5.5 kPa (41 mm Hg) GC/MS Checkout Sample, 10 ng/ul 5.5 kPa (41 mm Hg)
Relative vapor density	: Benzophenone in isooctane, 100 pg/μl >1 [Air = 1] OFN in Isooctane, 1 pg/μl 3.93 [Air = 1] GC/MS Checkout Sample, 10 ng/ul 3.93 [Air = 1]
Relative density	: Benzophenone in isooctane, 100 pg/μl Not available. OFN in Isooctane, 1 pg/μl 0.692 GC/MS Checkout Sample, 10 ng/ul Not available.

Section 9. Physical and chemical properties and safety characteristics

Solubility(ies)	Media	Result
	Benzophenone in isooctane, 100 pg/ μ l water	Insoluble
	OFN in Isooctane, 1 pg/ μ l water	Insoluble
	GC/MS Checkout Sample, 10 ng/ μ l water	Insoluble
Partition coefficient: n-octanol/water	Benzophenone in isooctane, 100 pg/ μ l	4.5
	OFN in Isooctane, 1 pg/ μ l	Not applicable.
	GC/MS Checkout Sample, 10 ng/ μ l	Not applicable.
Auto-ignition temperature	Benzophenone in isooctane, 100 pg/ μ l	418°C (784.4°F)
	OFN in Isooctane, 1 pg/ μ l	418°C (784.4°F)
	GC/MS Checkout Sample, 10 ng/ μ l	418°C (784.4°F)
Decomposition temperature	Benzophenone in isooctane, 100 pg/ μ l	Not available.
	OFN in Isooctane, 1 pg/ μ l	Not available.
	GC/MS Checkout Sample, 10 ng/ μ l	Not available.
Viscosity	Benzophenone in isooctane, 100 pg/ μ l	Not available.
	OFN in Isooctane, 1 pg/ μ l	Not available.
	GC/MS Checkout Sample, 10 ng/ μ l	Not available.
Particle characteristics		
Median particle size	Benzophenone in isooctane, 100 pg/ μ l	Not applicable.
	OFN in Isooctane, 1 pg/ μ l	Not applicable.
	GC/MS Checkout Sample, 10 ng/ μ l	Not applicable.

Section 10. Stability and reactivity

10.1 Reactivity	Benzophenone in isooctane, 100 pg/ μ l	No specific test data related to reactivity available for this product or its ingredients.
	OFN in Isooctane, 1 pg/ μ l	No specific test data related to reactivity available for this product or its ingredients.
	GC/MS Checkout Sample, 10 ng/ μ l	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	Benzophenone in isooctane, 100 pg/ μ l	The product is stable.
	OFN in Isooctane, 1 pg/ μ l	The product is stable.
	GC/MS Checkout Sample, 10 ng/ μ l	The product is stable.
10.3 Possibility of hazardous reactions	Benzophenone in isooctane, 100 pg/ μ l	Under normal conditions of storage and use, hazardous reactions will not occur.
	OFN in Isooctane, 1 pg/ μ l	Under normal conditions of storage and use, hazardous reactions will not occur.
	GC/MS Checkout Sample, 10 ng/ μ l	Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

10.4 Conditions to avoid	: Benzophenone in isooctane, 100 pg/µl	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.
	OFN in Isooctane, 1 pg/µl	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.
	GC/MS Checkout Sample, 10 ng/ul	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	: Benzophenone in isooctane, 100 pg/µl	Reactive or incompatible with the following materials: oxidizing materials
	OFN in Isooctane, 1 pg/µl	Reactive or incompatible with the following materials: oxidizing materials
	GC/MS Checkout Sample, 10 ng/ul	Reactive or incompatible with the following materials: oxidizing materials
10.6 Hazardous decomposition products	: Benzophenone in isooctane, 100 pg/µl	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	OFN in Isooctane, 1 pg/µl	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	GC/MS Checkout Sample, 10 ng/ul	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
Benzophenone in isooctane, 100 pg/µl 2,2,4-trimethylpentane	LC50 Inhalation Vapor	Rat - Male, Female	>33.52 mg/l	4 hours
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-
OFN in Isooctane, 1 pg/µl 2,2,4-trimethylpentane	LC50 Inhalation Vapor	Rat - Male, Female	>33.52 mg/l	4 hours
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-
GC/MS Checkout Sample, 10 ng/ul 2,2,4-trimethylpentane	LC50 Inhalation Vapor	Rat - Male, Female	>33.52 mg/l	4 hours

Section 11. Toxicological information

	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-
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Irritation/Corrosion

Not available.

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
Benzophenone in isooctane, 100 pg/μl 2,2,4-trimethylpentane	Category 3	-	Narcotic effects
OFN in Isooctane, 1 pg/μl 2,2,4-trimethylpentane	Category 3	-	Narcotic effects
GC/MS Checkout Sample, 10 ng/ul 2,2,4-trimethylpentane	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Benzophenone in isooctane, 100 pg/μl Benzophenone in isooctane, 100 pg/μl 2,2,4-trimethylpentane	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1
OFN in Isooctane, 1 pg/μl OFN in Isooctane, 1 pg/μl 2,2,4-trimethylpentane	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1
GC/MS Checkout Sample, 10 ng/ul GC/MS Checkout Sample, 10 ng/ul 2,2,4-trimethylpentane	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Benzophenone in isooctane, 100 pg/μl
OFN in Isooctane, 1 pg/μl

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

GC/MS Checkout Sample, 10 ng/ul

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Section 11. Toxicological information

Eye contact	: Benzophenone in isooctane, 100 pg/μl	No known significant effects or critical hazards.
	OFN in Isooctane, 1 pg/μl	No known significant effects or critical hazards.
	GC/MS Checkout Sample, 10 ng/ul	No known significant effects or critical hazards.
Inhalation	: Benzophenone in isooctane, 100 pg/μl	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
	OFN in Isooctane, 1 pg/μl	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
	GC/MS Checkout Sample, 10 ng/ul	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: Benzophenone in isooctane, 100 pg/μl	Causes skin irritation.
	OFN in Isooctane, 1 pg/μl	Causes skin irritation.
	GC/MS Checkout Sample, 10 ng/ul	Causes skin irritation.
Ingestion	: Benzophenone in isooctane, 100 pg/μl	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
	OFN in Isooctane, 1 pg/μl	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
	GC/MS Checkout Sample, 10 ng/ul	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	: Benzophenone in isooctane, 100 pg/μl	Adverse symptoms may include the following: pain or irritation watering redness
	OFN in Isooctane, 1 pg/μl	Adverse symptoms may include the following: pain or irritation watering redness
	GC/MS Checkout Sample, 10 ng/ul	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Benzophenone in isooctane, 100 pg/μl	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	OFN in Isooctane, 1 pg/μl	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	GC/MS Checkout Sample, 10 ng/ul	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness

Section 11. Toxicological information

Skin contact	: Benzophenone in isooctane, 100 pg/μl	Adverse symptoms may include the following: irritation redness
	: OFN in Isooctane, 1 pg/μl	Adverse symptoms may include the following: irritation redness
	: GC/MS Checkout Sample, 10 ng/ul	Adverse symptoms may include the following: irritation redness
Ingestion	: Benzophenone in isooctane, 100 pg/μl	Adverse symptoms may include the following: nausea or vomiting
	: OFN in Isooctane, 1 pg/μl	Adverse symptoms may include the following: nausea or vomiting
	: GC/MS Checkout Sample, 10 ng/ul	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 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	: Benzophenone in isooctane, 100 pg/μl	No known significant effects or critical hazards.
	: OFN in Isooctane, 1 pg/μl	No known significant effects or critical hazards.
	: GC/MS Checkout Sample, 10 ng/ul	No known significant effects or critical hazards.
Carcinogenicity	: Benzophenone in isooctane, 100 pg/μl	No known significant effects or critical hazards.
	: OFN in Isooctane, 1 pg/μl	No known significant effects or critical hazards.
	: GC/MS Checkout Sample, 10 ng/ul	No known significant effects or critical hazards.
Mutagenicity	: Benzophenone in isooctane, 100 pg/μl	No known significant effects or critical hazards.
	: OFN in Isooctane, 1 pg/μl	No known significant effects or critical hazards.
	: GC/MS Checkout Sample, 10 ng/ul	No known significant effects or critical hazards.
Reproductive toxicity	: Benzophenone in isooctane, 100 pg/μl	No known significant effects or critical hazards.
	: OFN in Isooctane, 1 pg/μl	No known significant effects or critical hazards.
	: GC/MS Checkout Sample, 10 ng/ul	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

N/A

Section 11. Toxicological information

Other information	: Benzophenone in isooctane, 100 pg/μl	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.
	: OFN in Isooctane, 1 pg/μl	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.
	: GC/MS Checkout Sample, 10 ng/ul	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.

Section 12. Ecological information

12.1 Toxicity

Not available.

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Benzophenone in isooctane, 100 pg/μl 2,2,4-trimethylpentane	-	-	Inherent
OFN in Isooctane, 1 pg/μl 2,2,4-trimethylpentane	-	-	Inherent
GC/MS Checkout Sample, 10 ng/ul 2,2,4-trimethylpentane	-	-	Inherent

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Benzophenone in isooctane, 100 pg/μl Benzophenone in isooctane, 100 pg/μl	4.5	-	High
2,2,4-trimethylpentane	4.08	231	Low
OFN in Isooctane, 1 pg/μl 2,2,4-trimethylpentane	4.08	231	Low
GC/MS Checkout Sample, 10 ng/ul 2,2,4-trimethylpentane	4.08	231	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : 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.

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 / IATA : Not regulated.

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 to IMO instruments : Not available.

Section 15. Regulatory information

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

U.S. Federal regulations : **TSCA 6 final risk management:** 4-Chlorobiphenyl
TSCA 8(a) PAIR: Biphenyl
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 307: 4-Chlorobiphenyl
Clean Water Act (CWA) 311: 4-Chlorobiphenyl

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Section 15. Regulatory information

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

Classification	: Benzophenone in isooctane, 100 pg/μl	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1
	OFN in Isooctane, 1 pg/μl	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1
	GC/MS Checkout Sample, 10 ng/ul	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
Benzophenone in isooctane, 100 pg/μl 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
OFN in Isooctane, 1 pg/μl 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
GC/MS Checkout Sample, 10 ng/ul 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 requirements	GC/MS Checkout Sample, 10 ng/ul 4-Chlorobiphenyl	2051-62-9	<0.1
Supplier notification	GC/MS Checkout Sample, 10 ng/ul 4-Chlorobiphenyl	2051-62-9	<0.1

Section 15. Regulatory information

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
New York : The following components are listed: 2,2,4-Trimethylpentane
New Jersey : The following components are listed: ISOOCTANE
Pennsylvania : The following components are listed: PENTANE, 2,2,4-TRIMETHYL-
California Prop. 65

⚠ WARNING: This product can expose you to chemicals including Polychlorinated biphenyls, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Benzophenone, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Benzophenone in isooctane, 100 pg/μl Benzophenone	-	-
GC/MS Checkout Sample, 10 ng/ul 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.

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 : All components are listed or exempted.
Thailand : Not determined.
Turkey : Not determined.
United States : Not determined.
Viet Nam : All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
Benzophenone in isooctane, 100 pg/μl FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1	On basis of test data Calculation method Calculation method Expert judgment Calculation method Calculation method
OFN in Isooctane, 1 pg/μl FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1	On basis of test data Calculation method Calculation method Expert judgment Calculation method Calculation method
GC/MS Checkout Sample, 10 ng/ul FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1	On basis of test data Calculation method Calculation method Expert judgment Calculation method Calculation method

History

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Version : 8

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 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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