

SAFETY DATA SHEET

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

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

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	

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	
Uses advised against	: None known.		

1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.
 5500 Lakeside Cheadle Royal Business Park,
 Cheadle, Cheshire, SK8 3GR
 United Kingdom
 Tel: +44 (0) 345 712 5292
e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

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

Benzophenone in isooctane, 100 pg/μl

H225	FLAMMABLE LIQUIDS	Category 2
H315	SKIN CORROSION/IRRITATION	Category 2
H336	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects)	Category 3
H304	ASPIRATION HAZARD	Category 1
H400	SHORT-TERM (ACUTE) AQUATIC HAZARD	Category 1
H410	LONG-TERM (CHRONIC) AQUATIC HAZARD	Category 1

OFN in Isooctane, 1 pg/μl

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

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

GC/MS Checkout Sample, 10 ng/ul

H225	FLAMMABLE LIQUIDS	Category 2
H315	SKIN CORROSION/IRRITATION	Category 2
H336	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects)	Category 3
H304	ASPIRATION HAZARD	Category 1
H400	SHORT-TERM (ACUTE) AQUATIC HAZARD	Category 1
H410	LONG-TERM (CHRONIC) AQUATIC HAZARD	Category 1

<input checked="" type="checkbox"/> Benzophenone in isooctane, 100 pg/μl	The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
OFN in Isooctane, 1 pg/μl	The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
GC/MS Checkout Sample, 10 ng/ul	The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.
 See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms

<input checked="" type="checkbox"/> Benzophenone in isooctane, 100 pg/μl	
OFN in Isooctane, 1 pg/μl	
GC/MS Checkout Sample, 10 ng/ul	

Signal word

<input checked="" type="checkbox"/> Benzophenone in isooctane, 100 pg/μl	Danger
OFN in Isooctane, 1 pg/μl	Danger
GC/MS Checkout Sample, 10 ng/ul	Danger

Hazard statements

<input checked="" type="checkbox"/> Benzophenone in isooctane, 100 pg/μl	H225 - Highly flammable liquid and vapour. H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H336 - May cause drowsiness or dizziness.
OFN in Isooctane, 1 pg/μl	H410 - Very toxic to aquatic life with long lasting effects. H225 - Highly flammable liquid and vapour. H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H336 - May cause drowsiness or dizziness.
GC/MS Checkout Sample, 10 ng/ul	H410 - Very toxic to aquatic life with long lasting effects. H225 - Highly flammable liquid and vapour. H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H336 - May cause drowsiness or dizziness.

SECTION 2: Hazards identification

Precautionary statements

Prevention	:	☑ Benzophenone in isooctane, 100 pg/μl	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment.
		OFN in Isooctane, 1 pg/μl	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment.
		GC/MS Checkout Sample, 10 ng/ul	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment.
Response	:	☑ Benzophenone in isooctane, 100 pg/μl	P391 - Collect spillage. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
		OFN in Isooctane, 1 pg/μl	P391 - Collect spillage. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
		GC/MS Checkout Sample, 10 ng/ul	P391 - Collect spillage. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
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 + P233 - Store in a well-ventilated place. Keep container tightly closed.
		GC/MS Checkout Sample, 10 ng/ul	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
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.
Hazardous ingredients	:	☑ Benzophenone in isooctane, 100 pg/μl	2,2,4-trimethylpentane
		OFN in Isooctane, 1 pg/μl	2,2,4-trimethylpentane
		GC/MS Checkout Sample, 10 ng/ul	2,2,4-trimethylpentane
Supplemental label elements	:	☑ 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.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	☑ 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.
Special packaging requirements			
Containers to be fitted with child-resistant fastenings	:	☑ 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.
Tactile warning of danger	:	☑ 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.

SECTION 2: Hazards identification

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: Benzophenone in isooctane, 100 pg/µl	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	OFN in Isooctane, 1 pg/µl	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	GC/MS Checkout Sample, 10 ng/ul	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: 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

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

Product/ingredient name	Identifiers	%	Classification	Type
Benzophenone in isooctane, 100 pg/µl 2,2,4-trimethylpentane	EC: 208-759-1 CAS: 540-84-1	≥90	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
OFN in Isooctane, 1 pg/µl 2,2,4-trimethylpentane	EC: 208-759-1 CAS: 540-84-1	≥90	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
GC/MS Checkout Sample, 10 ng/ul 2,2,4-trimethylpentane	EC: 208-759-1 CAS: 540-84-1	≥90	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above.	[1]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type	
Benzophenone in isooctane, 100 pg/µl	[1] Substance classified with a health or environmental hazard
OFN in Isooctane, 1 pg/µl	[1] Substance classified with a health or environmental hazard
GC/MS Checkout Sample, 10 ng/ul	[1] Substance classified with a health or environmental hazard

SECTION 3: Composition/information on ingredients

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

SECTION 4: First aid measures

4.1 Description of 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 trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

- : Benzophenone in isooctane, 100 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.
- 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

SECTION 4: First aid measures

Ingestion

: Benzophenone in isooctane, 100 pg/μl

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.

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 enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders

: 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.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

SECTION 4: First aid measures

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
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 any immediate medical attention and special treatment needed

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.

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SECTION 4: First aid measures

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.

SECTION 5: Firefighting 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

Hazards from the substance or mixture	: Benzophenone in isooctane, 100 pg/μl	Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	OFN in Isooctane, 1 pg/μl	Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	GC/MS Checkout Sample, 10 ng/ul	Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products	: 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	Decomposition products may include the following materials:

SECTION 5: Firefighting measures

Sample, 10 ng/ul
 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

OFN in Isooctane, 1 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SECTION 6: Accidental release measures

For emergency responders

- : Benzophenone in isooctane, 100 pg/μl
OFN in Isooctane, 1 pg/μl
GC/MS Checkout Sample, 10 ng/ul
- If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Benzophenone in isooctane, 100 pg/μl
OFN in Isooctane, 1 pg/μl
GC/MS Checkout Sample, 10 ng/ul
- Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
- Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
- Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up

- : Benzophenone in isooctane, 100 pg/μl
OFN in Isooctane, 1 pg/μl
GC/MS Checkout Sample, 10 ng/ul
- 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.
- Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

: Benzophenone in isooctane, 100 pg/μl

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

OFN in Isooctane, 1 pg/μl

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

GC/MS Checkout Sample, 10 ng/ul

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

Advice on general occupational hygiene

: 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

SECTION 7: Handling and storage

for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage

: 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 oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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 incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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 oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
Benzophenone in isooctane, 100 pg/µl P5c E1	5000 tonne 100 tonne	50000 tonne 200 tonne
OFN in Isooctane, 1 pg/µl P5c E1	5000 tonne 100 tonne	50000 tonne 200 tonne
GC/MS Checkout Sample, 10 ng/ul P5c E1	5000 tonne 100 tonne	50000 tonne 200 tonne

7.3 Specific end use(s)

SECTION 7: Handling and storage

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

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Benzophenone in isooctane, 100 pg/μl 2,2,4-trimethylpentane	DNEL	Long term Inhalation	608 mg/m ³	General population	Systemic
	DNEL	Long term Oral	699 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	699 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	773 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2035 mg/m ³	Workers	Systemic
OFN in Isooctane, 1 pg/μl 2,2,4-trimethylpentane	DNEL	Long term Inhalation	608 mg/m ³	General population	Systemic
	DNEL	Long term Oral	699 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	699 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	773 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2035 mg/m ³	Workers	Systemic
GC/MS Checkout Sample, 10 ng/ul 2,2,4-trimethylpentane	DNEL	Long term Inhalation	608 mg/m ³	General population	Systemic
	DNEL	Long term Oral	699 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	699 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	773 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2035 mg/m ³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

PNECs

No PNECs available

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

Individual protection measures

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

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

Skin protection

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

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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

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

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

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

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.

SECTION 9: Physical and chemical properties

Colour	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	Light Colourless. Clear. / Colourless.
Odour	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	Gasoline-like [Strong] Gasoline-like [Strong] Gasoline-like
Odour threshold	: 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.
Melting point/freezing point	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	-107°C -107°C -107°C
Initial boiling point and boiling range	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	99.2°C 99.2°C 99.2°C
Flammability	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	Not applicable. Not applicable. Not applicable.
Upper/lower flammability or explosive limits	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	Lower: 1.1% Upper: <=13% Lower: 1.1% Upper: 6% Lower: 1.1% Upper: 6%
Flash point	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	Closed cup: -18 to 23°C [Based on solvent.] Open cup: 4.5°C Closed cup: -18 to 23°C [Based on solvent.] Open cup: 4.5°C Closed cup: -18 to 23°C Open cup: 4.5°C
Auto-ignition temperature	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	418°C 418°C 418°C
Decomposition temperature	: 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.
pH	: 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 9: Physical and chemical properties

Viscosity	:	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.
Solubility(ies)	:	Media Benzophenone in isooctane, 100 pg/μl water OFN in Isooctane, 1 pg/μl water GC/MS Checkout Sample, 10 ng/ul water	Result Insoluble Insoluble Insoluble
Partition coefficient: n-octanol/water	:	<input checked="" type="checkbox"/> Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	4.5 Not applicable. Not applicable.
Vapour pressure	:	<input checked="" type="checkbox"/> Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	5.5 kPa (41 mm Hg) 5.5 kPa (41 mm Hg) 5.5 kPa (41 mm Hg)
Evaporation rate	:	Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	3.6 (butyl acetate = 1) Not available. Not available.
Relative density	:	Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	Not available. 0.692 Not available.
Vapour density	:	Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	>1 [Air = 1] 3.93 [Air = 1] 3.93 [Air = 1]
Explosive properties	:	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.
Oxidising properties	:	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.
Particle characteristics			
Median particle size	:	<input checked="" type="checkbox"/> Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	Not applicable. Not applicable. Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Benzophenone in isooctane, 100 pg/µl OFN in Isooctane, 1 pg/µl GC/MS Checkout Sample, 10 ng/ul	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. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Benzophenone in isooctane, 100 pg/µl OFN in Isooctane, 1 pg/µl GC/MS Checkout Sample, 10 ng/ul	The product is stable. The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Benzophenone in isooctane, 100 pg/µl OFN in Isooctane, 1 pg/µl GC/MS Checkout Sample, 10 ng/ul	Under normal conditions of storage and use, hazardous reactions will not occur. 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	: Benzophenone in isooctane, 100 pg/µl OFN in Isooctane, 1 pg/µl GC/MS Checkout Sample, 10 ng/ul	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas. Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas. Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
10.5 Incompatible materials	: Benzophenone in isooctane, 100 pg/µl OFN in Isooctane, 1 pg/µl GC/MS Checkout Sample, 10 ng/ul	Reactive or incompatible with the following materials: oxidising materials Reactive or incompatible with the following materials: oxidising materials Reactive or incompatible with the following materials: oxidising materials
10.6 Hazardous decomposition products	: Benzophenone in isooctane, 100 pg/µl OFN in Isooctane, 1 pg/µl GC/MS Checkout Sample, 10 ng/ul	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. 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

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Benzophenone in isooctane, 100 pg/μl 2,2,4-trimethylpentane	LC50 Inhalation Vapour	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 Vapour	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 Vapour	Rat - Male, Female	>33.52 mg/l	4 hours
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-

Acute toxicity estimates

N/A

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
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

SECTION 11: Toxicological information

Product/ingredient 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 likely routes of exposure :

- Benzophenone in isooctane, 100 pg/μl** Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
- 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.

Potential acute health effects

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.

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.

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.

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.

Symptoms related to the physical, chemical and toxicological characteristics

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

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
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
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

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

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.

SECTION 11: Toxicological information

Mutagenicity	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Reproductive toxicity	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Other information	: Benzophenone in isooctane, 100 pg/μl OFN in Isooctane, 1 pg/μl GC/MS Checkout Sample, 10 ng/ul	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking. Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking. Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

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 2,2,4-trimethylpentane	4.5 4.08	- 231	High 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.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

SECTION 12: Ecological information

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

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






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

Packaging

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

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

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	UN1262	UN1262	UN1262
14.2 UN proper shipping name	OCTANES solution	OCTANES solution	Octanes solution
14.3 Transport hazard class(es)	3  	3  	3 
14.4 Packing group	II	II	II
14.5 Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

Remarks: De minimis quantities

ADR/RID : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Hazard identification number 33
Limited quantity 1 L
Tunnel code (D/E)

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Emergency schedules F-E, S-E

SECTION 14: Transport information

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.
Quantity limitation Passenger and Cargo Aircraft: 5 L. Packaging instructions: 353. Cargo Aircraft Only: 60 L. Packaging instructions: 364. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y341.

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

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product / Ingredient name	Identifiers	Status
<input checked="" type="checkbox"/> Benzophenone in isooctane, 100 pg/µl Benzophenone in isooctane, 100 pg/µl	-	3
<input checked="" type="checkbox"/> OFN in Isooctane, 1 pg/µl OFN in Isooctane, 1 pg/µl	-	3
<input checked="" type="checkbox"/> GC/MS Checkout Sample, 10 ng/ul GC/MS Checkout Sample, 10 ng/ul	-	3

Label : 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.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

SECTION 15: Regulatory information

Category

Benzophenone in isooctane, 100 pg/μl

P5c
E1

OFN in Isooctane, 1 pg/μl

P5c
E1

GC/MS Checkout Sample, 10 ng/ul

P5c
E1

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

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

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

United States : Not determined.

SECTION 16: Other information

 Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

SECTION 16: Other information

Classification	Justification
<p>Benzophenone in isooctane, 100 pg/μl Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410</p> <p>OFN in Isooctane, 1 pg/μl Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410</p> <p>GC/MS Checkout Sample, 10 ng/ul Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410</p>	<p>On basis of test data Calculation method Calculation method Expert judgment Calculation method Calculation method</p> <p>On basis of test data Calculation method Calculation method Expert judgment Calculation method Calculation method</p> <p>On basis of test data Calculation method Calculation method Expert judgment Calculation method Calculation method</p>

Full text of abbreviated H statements

<p>Benzophenone in isooctane, 100 pg/μl</p> <p>H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.</p> <p>OFN in Isooctane, 1 pg/μl</p> <p>H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.</p> <p>GC/MS Checkout Sample, 10 ng/ul</p> <p>H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.</p>

Full text of classifications

SECTION 16: Other information

Benzophenone in isooctane, 100 pg/µl

Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

OFN in Isooctane, 1 pg/µl

Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

GC/MS Checkout Sample, 10 ng/ul

Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of issue/ Date of revision : 22/04/2024

Date of previous issue : 15/07/2021

Version : 5

Notice to reader

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