SAFETY DATA SHEET

Agilent Technologies

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 Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

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

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition :

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	Category 3

SECTION 2: Hazards identification

	(Narcotic effects)	
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

Benzophenone in isooctane, 100 pg/µl	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
OFN in Isooctane, 1 pg/µl	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
GC/MS Checkout Sample, 10 ng/ul	The product is classified as hazardous according to Regulation (EC) 1272/2008 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 :

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 vapour.
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 vapour.
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 vapour.
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.

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

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.

2.3 Other hazards

SECTION 2: Hazards identification

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	Specific Conc. Limits, M-factors and ATEs	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 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 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 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 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 Aquatic Chronic 1, H410 **See Section 16 for the full text of the H statements declared above.**	M [Acute] = 1 M [Chronic] = 1	[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

SECTION 3: Composition/information on ingredients

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

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

SECTION 4: First aid measures

	GC/MS Checkout Sample, 10 ng/ul	before reuse. Clean shoes thoroughly before reuse. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
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 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.

SECTION 4: First aid measures

4.2 Most important symptoms and effects, both 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 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 4: First aid measures

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.
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.

SECTION 5: Firefighting measures

	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 Sample, 10 ng/ul	Decomposition products may include the following materials: carbon dioxide carbon monoxide

5.3 Advice for firefighters

Special precautions 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a

SECTION 5: Firefighting measures

	basic level of protection for chemical incidents.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: 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.
For emergency responders	: Benzophenone in isooctane, 100 pg/µl	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".
	OFN in Isooctane, 1 pg/µl	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".
	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".
6.2 Environmental precautions	: Benzophenone in isooctane, 100 pg/µl	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.
	OFN in Isooctane, 1 pg/µl	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.

SECTION 6: Accidental release measures

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.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up :

Benzophenone in isooctane, 100 pg/µl	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/µl	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/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.

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

SECTION 7: Handling and storage

		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 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-

SECTION 7: Handling and storage

ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from 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	5000 tonne	50000 tonne
E1	100 tonne	200 tonne
OFN in Isooctane, 1 pg/µl		
P5c	5000 tonne	50000 tonne
E1	100 tonne	200 tonne
GC/MS Checkout Sample, 10 ng/ul		
P5c	5000 tonne	50000 tonne
E1	100 tonne	200 tonne

7.3 Specific end use(s)

Recommendations :

Benzophenone in isooctane, 100 pg/µl	Industrial applications, Professional applications.
OFN in Isooctane, 1 pg/µl	Industrial applications, Professional applications.
GC/MS Checkout Sample, 10 ng/ul	Industrial applications, Professional applications.

Industrial sector specific solutions :

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.

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 monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
Benzophenone in isooctane, 100 pg/µl					
2,2,4-trimethylpentane	DNEL	Long term Inhalation	608 mg/m³	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/m³	Workers	Systemic
OFN in Isooctane, 1 pg/µl					
2,2,4-trimethylpentane	DNEL	Long term Inhalation	608 mg/m³	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/m³	Workers	Systemic
GC/MS Checkout Sample, 10 ng/ul					
2,2,4-trimethylpentane	DNEL	Long term Inhalation	608 mg/m³	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/m³	Workers	Systemic

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

SECTION 8: Exposure controls/personal protection

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

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

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

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

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

SECTION 9: Physical and chemical properties

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.
Colour :	Benzophenone in isooctane, 100 pg/µl	Light
	OFN in Isooctane, 1 pg/µl	Colourless.
	GC/MS Checkout Sample, 10 ng/ul	Clear. / Colourless.
Odour :	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
Odour 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.
Melting point/freezing point :	Benzophenone in isooctane, 100 pg/µl	-107°C
	OFN in Isooctane, 1 pg/µl	-107°C
	GC/MS Checkout Sample, 10 ng/ul	-107°C
Initial boiling point and boiling range :	Benzophenone in isooctane, 100 pg/µl	99.2°C
	OFN in Isooctane, 1 pg/µl	99.2°C
	GC/MS Checkout Sample, 10 ng/ul	99.2°C

SECTION 9: Physical and chemical properties

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.

Upper/lower flammability or explosive limits :

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%

Flash point :

Benzophenone in isooctane, 100 pg/µl	Closed cup: -18 to 23°C [Based on solvent.] Open cup: 4.5°C
OFN in Isooctane, 1 pg/µl	Closed cup: -18 to 23°C [Based on solvent.] Open cup: 4.5°C
GC/MS Checkout Sample, 10 ng/ul	Closed cup: -18 to 23°C Open cup: 4.5°C

Auto-ignition temperature :

Benzophenone in isooctane, 100 pg/µl	418°C
OFN in Isooctane, 1 pg/µl	418°C
GC/MS Checkout Sample, 10 ng/ul	418°C

Decomposition temperature :

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.

Viscosity :

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.

Solubility(ies) :

Media	Result
Benzophenone in isooctane, 100 pg/µl	
water	Insoluble
OFN in Isooctane, 1 pg/µl	
water	Insoluble
GC/MS Checkout Sample, 10 ng/ul	
water	Insoluble

Partition coefficient: n-octanol/water :

Benzophenone in isooctane, 100 pg/µl	4.5
OFN in Isooctane, 1 pg/µl	Not applicable.
GC/MS Checkout Sample, 10 ng/ul	Not applicable.

Vapour 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)

SECTION 9: Physical and chemical properties

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.
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.
Vapour 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]
Explosive properties	:	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.
Oxidising properties	:	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.
Particle characteristics			
Median particle size	:	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.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

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

10.5 Incompatible materials :

Benzophenone in isooctane, 100 pg/µl	Reactive or incompatible with the following materials: oxidising materials
OFN in Isooctane, 1 pg/µl	Reactive or incompatible with the following materials: oxidising materials
GC/MS Checkout Sample, 10 ng/ul	Reactive or incompatible with the following materials: oxidising 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 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.

SECTION 11: Toxicological information

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

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

SECTION 11: Toxicological information

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
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

SECTION 11: Toxicological information

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.
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.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 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

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Not available.

SECTION 12: Ecological information

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.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

Not available.

12.7 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

SECTION 13: Disposal considerations

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 or ID 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

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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

Product / Ingredient name	Identifiers	Designation [Usage]
Benzophenone in isooctane, 100 pg/µl Benzophenone in isooctane, 100 pg/µl	-	3
OFN in Isooctane, 1 pg/µl OFN in Isooctane, 1 pg/µl	-	3
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.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

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

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

SECTION 15: Regulatory information

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.
Eurasian Economic Union	:	**Russian Federation inventory**: All components are listed or exempted.
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.

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
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 according to Regulation (EC) No. 1272/2008 [CLP/GHS]

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

SECTION 16: Other information

Aquatic Chronic 1, H410	Calculation method
GC/MS Checkout Sample, 10 ng/ul	
Flam. Liq. 2, H225	On basis of test data
Skin Irrit. 2, H315	Calculation method
STOT SE 3, H336	Calculation method
Asp. Tox. 1, H304	Expert judgment
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
OFN in Isooctane, 1 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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
GC/MS Checkout Sample, 10 ng/ul	
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.

Full text of classifications [CLP/GHS]

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

SECTION 16: Other information

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