Conforms to Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals

SAFETY DATA SHEET

Agilent Technologies

GC Checkout Standards Kit, Part Number 5188-5358

Section 1. Identification

Product identifier : GC Checkout Standards Kit, Part Number 5188-5358

Part no. (chemical kit) : 5188-5358

Part no. :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	5080-8842
Electron Capture Detector Sample	18713-60040-1
Nitrogen/Phosphorus Detector Sample	18789-60060-1
Flame Photometric Detector Checkout Sample (40)	5188-5953-1
Headspace OQ/PV Standard	5182-9733-1

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

Identified uses : Reagents and Standards for Analytical Chemistry Laboratory Use

Flame Ionization Detector (FID) Sample-0.33%(w/w)	2 x 0.5 ml
Electron Capture Detector Sample	1 x 0.5 ml
Nitrogen/Phosphorus Detector Sample	1 x 0.5 ml
Flame Photometric Detector Checkout Sample (40)	1 x 1 ml
Headspace OQ/PV Standard	1 x 1 ml

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

Flame Ionization Detector (FID) Sample-0.33%(w/w)

H225	FLAMMABLE LIQUIDS - Category 2
H315	SKIN CORROSION/IRRITATION - Category 2
H320	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B
H361	REPRODUCTIVE TOXICITY - Category 2
H336	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
H304	ASPIRATION HAZARD - Category 1
H411	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

Electron Capture Detector Sample

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

Section 2. Hazard(s) identification

Nitrogen/Phosphorus Detector Sample

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

Flame Photometric Detector Checkout Sample (40)

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

Headspace OQ/PV Standard

H225	FLAMMABLE LIQUIDS - Category 2
H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
H412	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

GHS label elements

Hazard pictograms :

Flame Ionization Detector (FID) Sample-0.33%(w/w)

Electron Capture Detector Sample

Nitrogen/Phosphorus Detector Sample

Flame Photometric Detector Checkout Sample (40)

Headspace OQ/PV Standard

Signal word :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	DANGER
Electron Capture Detector Sample	DANGER
Nitrogen/Phosphorus Detector Sample	DANGER
Flame Photometric Detector Checkout Sample (40)	DANGER
Headspace OQ/PV Standard	DANGER

Section 2. Hazard(s) identification

Hazard statements :

Flame Ionization Detector (FID) Sample-0.33%(w/w)
H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H315 + H320 - Causes skin and eye irritation.
H336 - May cause drowsiness or dizziness.
H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
H411 - Toxic to aquatic life with long lasting effects.

Electron Capture Detector Sample
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.

Nitrogen/Phosphorus Detector Sample
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.

Flame Photometric Detector Checkout Sample (40)
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.

Headspace OQ/PV Standard
H225 - Highly flammable liquid and vapour.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention :

Flame Ionization Detector (FID) Sample-0.33%(w/w)
P280 - Wear protective gloves, protective clothing and eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 - Avoid release to the environment.

Electron Capture Detector Sample
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 - Avoid release to the environment.

Nitrogen/Phosphorus Detector Sample
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 - Avoid release to the environment.

Flame Photometric Detector Checkout Sample (40)
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 - Avoid release to the environment.

Headspace OQ/PV Standard
P280 - Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 - Avoid release to the environment.

Response :

Flame Ionization Detector (FID) Sample-0.33%(w/w)
P391 - Collect spillage.

Electron Capture Detector Sample
P391 - Collect spillage.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Nitrogen/Phosphorus Detector Sample
P391 - Collect spillage.
P301 + P310 - IF SWALLOWED: Immediately call a

Section 2. Hazard(s) identification

		POISON CENTER or doctor.
	Flame Photometric Detector Checkout Sample (40)	P391 - Collect spillage. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
	Headspace OQ/PV Standard	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Storage :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
	Electron Capture Detector Sample	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
	Nitrogen/Phosphorus Detector Sample	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
	Flame Photometric Detector Checkout Sample (40)	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
	Headspace OQ/PV Standard	Not applicable.
Disposal :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Electron Capture Detector Sample	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Nitrogen/Phosphorus Detector Sample	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Flame Photometric Detector Checkout Sample (40)	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Headspace OQ/PV Standard	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

Additional warning phrases :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Not applicable.
	Electron Capture Detector Sample	Not applicable.
	Nitrogen/Phosphorus Detector Sample	Not applicable.
	Flame Photometric Detector Checkout Sample (40)	Not applicable.
	Headspace OQ/PV Standard	Not applicable.
Other hazards which do not result in classification :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	None known.
	Electron Capture Detector Sample	None known.
	Nitrogen/Phosphorus Detector Sample	None known.
	Flame Photometric Detector Checkout Sample (40)	None known.
	Headspace OQ/PV Standard	None known.

Section 3. Composition and ingredient information

Substance/mixture : Flame Ionization Detector (FID) Sample-0.33%(w/w) Mixture
Electron Capture Detector Sample Mixture
Nitrogen/Phosphorus Detector Sample Mixture
Flame Photometric Detector Checkout Sample (40) Mixture
Headspace OQ/PV Standard Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Flame Ionization Detector (FID) Sample-0.33%(w/w)		
n-Hexane	≥90	110-54-3
Electron Capture Detector Sample		
2,2,4-trimethylpentane	≥90	540-84-1
Nitrogen/Phosphorus Detector Sample		
2,2,4-trimethylpentane	≥90	540-84-1
Flame Photometric Detector Checkout Sample (40)		
2,2,4-trimethylpentane	≥90	540-84-1
Headspace OQ/PV Standard		
Ethanol	≥90	64-17-5
1,2-Dichlorobenzene	≤0.3	95-50-1

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

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Flame Ionization Detector (FID) Sample-0.33%(w/w) 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.

Electron Capture Detector Sample 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.

Nitrogen/Phosphorus Detector Sample 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.

Flame Photometric Detector Checkout Sample (40) Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue

Section 4. First aid measures

		Headspace OQ/PV Standard	to rinse for at least 10 minutes. Get medical attention. 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	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	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.
		Electron Capture Detector Sample	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.
		Nitrogen/Phosphorus Detector Sample	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.
		Flame Photometric Detector Checkout Sample (40)	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.
		Headspace OQ/PV Standard	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if

Section 4. First aid measures

			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 adverse health effects persist or are severe. 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	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Wash contaminated skin with soap and 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.
		Electron Capture Detector Sample	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.
		Nitrogen/Phosphorus Detector Sample	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.
		Flame Photometric Detector Checkout Sample (40)	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.
		Headspace OQ/PV Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	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.
		Electron Capture Detector Sample	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.
		Nitrogen/Phosphorus Detector Sample	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water.

Section 4. First aid measures

	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.
Flame Photometric Detector Checkout Sample (40)	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.
Headspace OQ/PV Standard	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. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Flame Ionization Detector (FID) Sample-0.33%(w/w)	Causes eye irritation.
	Electron Capture Detector Sample	No known significant effects or critical hazards.
	Nitrogen/Phosphorus Detector Sample	No known significant effects or critical hazards.
	Flame Photometric Detector Checkout Sample (40)	No known significant effects or critical hazards.
	Headspace OQ/PV Standard	Causes serious eye irritation.
Inhalation	: Flame Ionization Detector (FID) Sample-0.33%(w/w)	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
	Electron Capture Detector Sample	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
	Nitrogen/Phosphorus Detector Sample	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
	Flame Photometric Detector Checkout Sample (40)	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
	Headspace OQ/PV Standard	No known significant effects or critical hazards.

Section 4. First aid measures

Skin contact :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Causes skin irritation.
Electron Capture Detector Sample	Causes skin irritation.
Nitrogen/Phosphorus Detector Sample	Causes skin irritation.
Flame Photometric Detector Checkout Sample (40)	Causes skin irritation.
Headspace OQ/PV Standard	No known significant effects or critical hazards.

Ingestion :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
Electron Capture Detector Sample	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
Nitrogen/Phosphorus Detector Sample	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
Flame Photometric Detector Checkout Sample (40)	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
Headspace OQ/PV Standard	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Adverse symptoms may include the following: pain or irritation watering redness
Electron Capture Detector Sample	Adverse symptoms may include the following: pain or irritation watering redness
Nitrogen/Phosphorus Detector Sample	Adverse symptoms may include the following: pain or irritation watering redness
Flame Photometric Detector Checkout Sample (40)	Adverse symptoms may include the following: pain or irritation watering redness
Headspace OQ/PV Standard	Adverse symptoms may include the following: pain or irritation watering redness

Inhalation :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced foetal weight increase in foetal deaths skeletal malformations
Electron Capture Detector Sample	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Nitrogen/Phosphorus Detector Sample	Adverse symptoms may include the following:

Section 4. First aid measures

			nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
		Flame Photometric Detector Checkout Sample (40)	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
		Headspace OQ/PV Standard	No specific data.
Skin contact	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Adverse symptoms may include the following: irritation redness reduced foetal weight increase in foetal deaths skeletal malformations
		Electron Capture Detector Sample	Adverse symptoms may include the following: irritation redness
		Nitrogen/Phosphorus Detector Sample	Adverse symptoms may include the following: irritation redness
		Flame Photometric Detector Checkout Sample (40)	Adverse symptoms may include the following: irritation redness
		Headspace OQ/PV Standard	No specific data.
Ingestion	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Adverse symptoms may include the following: nausea or vomiting reduced foetal weight increase in foetal deaths skeletal malformations
		Electron Capture Detector Sample	Adverse symptoms may include the following: nausea or vomiting
		Nitrogen/Phosphorus Detector Sample	Adverse symptoms may include the following: nausea or vomiting
		Flame Photometric Detector Checkout Sample (40)	Adverse symptoms may include the following: nausea or vomiting
		Headspace OQ/PV Standard	No specific data.

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

Notes to physician	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Electron Capture Detector Sample	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Nitrogen/Phosphorus Detector Sample	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Flame Photometric Detector Checkout Sample (40)	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

Section 4. First aid measures

		ingested or inhaled.
	Headspace OQ/PV Standard	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	No specific treatment.
	Electron Capture Detector Sample	No specific treatment.
	Nitrogen/Phosphorus Detector Sample	No specific treatment.
	Flame Photometric Detector Checkout Sample (40)	No specific treatment.
	Headspace OQ/PV Standard	No specific treatment.
Protection of first-aiders :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	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.
	Electron Capture Detector Sample	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.
	Nitrogen/Phosphorus Detector Sample	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.
	Flame Photometric Detector Checkout Sample (40)	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.
	Headspace OQ/PV Standard	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Use dry chemical, CO_2, water spray (fog) or foam.
	Electron Capture Detector Sample	Use dry chemical, CO_2, water spray (fog) or foam.
	Nitrogen/Phosphorus Detector Sample	Use dry chemical, CO_2, water spray (fog) or foam.
	Flame Photometric Detector Checkout Sample (40)	Use dry chemical, CO_2, water spray (fog) or foam.
	Headspace OQ/PV Standard	Use dry chemical, CO_2, water spray (fog) or foam.

Section 5. Firefighting measures

Unsuitable extinguishing media :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Do not use water jet.
Electron Capture Detector Sample	Do not use water jet.
Nitrogen/Phosphorus Detector Sample	Do not use water jet.
Flame Photometric Detector Checkout Sample (40)	Do not use water jet.
Headspace OQ/PV Standard	Do not use water jet.

Specific hazards arising from the chemical :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	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 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.
Electron Capture Detector Sample	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.
Nitrogen/Phosphorus Detector Sample	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. 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.
Flame Photometric Detector Checkout Sample (40)	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.
Headspace OQ/PV Standard	Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This

Section 5. Firefighting measures

			material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		Electron Capture Detector Sample	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		Nitrogen/Phosphorus Detector Sample	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		Flame Photometric Detector Checkout Sample (40)	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		Headspace OQ/PV Standard	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Special protective actions for fire-fighters	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	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.
		Electron Capture Detector Sample	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.
		Nitrogen/Phosphorus Detector Sample	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.
		Flame Photometric Detector Checkout Sample (40)	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.
		Headspace OQ/PV Standard	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		Electron Capture Detector Sample	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

Section 5. Firefighting measures

		pressure mode.
	Nitrogen/Phosphorus Detector Sample	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Flame Photometric Detector Checkout Sample (40)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Headspace OQ/PV Standard	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hazchem code :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	3YE
	Electron Capture Detector Sample	3YE
	Nitrogen/Phosphorus Detector Sample	3YE
	Flame Photometric Detector Checkout Sample (40)	3YE
	Headspace OQ/PV Standard	2YE

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	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.
	Electron Capture Detector Sample	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.
	Nitrogen/Phosphorus Detector Sample	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.
	Flame Photometric Detector Checkout Sample (40)	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

Section 6. Accidental release measures

		ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Headspace OQ/PV Standard	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	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".
	Electron Capture Detector Sample	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".
	Nitrogen/Phosphorus Detector Sample	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".
	Flame Photometric Detector Checkout Sample (40)	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".
	Headspace OQ/PV Standard	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	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.
	Electron Capture Detector Sample	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.
	Nitrogen/Phosphorus Detector Sample	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.
	Flame Photometric Detector Checkout Sample (40)	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.
	Headspace OQ/PV Standard	Avoid dispersal of spilt material and runoff and

Section 6. Accidental release measures

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.

Methods and material for containment and cleaning up

Methods for cleaning up :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	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.
Electron Capture Detector Sample	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.
Nitrogen/Phosphorus Detector Sample	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.
Flame Photometric Detector Checkout Sample (40)	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.
Headspace OQ/PV Standard	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not swallow. 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

Section 7. Handling and storage

	measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Electron Capture Detector Sample	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.
Nitrogen/Phosphorus Detector Sample	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.
Flame Photometric Detector Checkout Sample (40)	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.
Headspace OQ/PV Standard	Put on appropriate personal protective equipment (see Section 8). Do not ingest. 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

Section 7. Handling and storage

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

: Flame Ionization Detector (FID) Sample-0.33%(w/w): 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.

Electron Capture Detector Sample: 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.

Nitrogen/Phosphorus Detector Sample: 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.

Flame Photometric Detector Checkout Sample (40): 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.

Headspace OQ/PV Standard: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Flame Ionization Detector (FID) Sample-0.33%(w/w): 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.

Electron Capture Detector Sample: 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

Section 7. Handling and storage

	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.
Nitrogen/Phosphorus Detector Sample	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.
Flame Photometric Detector Checkout Sample (40)	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.
Headspace OQ/PV Standard	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Flame Ionization Detector (FID) Sample-0.33%(w/w)	
n-Hexane	**Safe Work Australia (Australia, 10/2022).** TWA: 72 mg/m³ 8 hours. TWA: 20 ppm 8 hours.
Electron Capture Detector Sample	
2,2,4-trimethylpentane	**ACGIH TLV (United States, 1/2022). [Octane all isomers]** TWA: 300 ppm 8 hours.

Section 8. Exposure controls and personal protection

Nitrogen/Phosphorus Detector Sample 2,2,4-trimethylpentane	**ACGIH TLV (United States, 1/2022). [Octane all isomers]** TWA: 300 ppm 8 hours.
Flame Photometric Detector Checkout Sample (40) 2,2,4-trimethylpentane	**ACGIH TLV (United States, 1/2022). [Octane all isomers]** TWA: 300 ppm 8 hours.
Headspace OQ/PV Standard Ethanol	**Safe Work Australia (Australia, 10/2022).** TWA: 1880 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.
1,2-Dichlorobenzene	**Safe Work Australia (Australia, 10/2022).** STEL: 50 ppm 15 minutes. STEL: 301 mg/m³ 15 minutes. TWA: 25 ppm 8 hours. TWA: 150 mg/m³ 8 hours.

Biological exposure indices

No exposure indices known.

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.

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

Individual protection measures

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

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

Skin protection

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

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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.

Section 8. Exposure controls and personal protection

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

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Liquid. [Clear.]
		Electron Capture Detector Sample	Liquid.
		Nitrogen/Phosphorus Detector Sample	Liquid.
		Flame Photometric Detector Checkout Sample (40)	Liquid.
		Headspace OQ/PV Standard	Liquid.
Colour	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Colourless.
		Electron Capture Detector Sample	Not available.
		Nitrogen/Phosphorus Detector Sample	Not available.
		Flame Photometric Detector Checkout Sample (40)	Clear. Colourless.
		Headspace OQ/PV Standard	Clear. Colourless.
Odour	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Gasoline-like
		Electron Capture Detector Sample	Not available.
		Nitrogen/Phosphorus Detector Sample	Not available.
		Flame Photometric Detector Checkout Sample (40)	Gasoline-like
		Headspace OQ/PV Standard	Ethereal. Vinous.
Odour threshold	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Not available.
		Electron Capture Detector Sample	Not available.
		Nitrogen/Phosphorus Detector Sample	Not available.
		Flame Photometric Detector Checkout Sample (40)	Not available.
		Headspace OQ/PV Standard	Not available.
pH	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Not available.
		Electron Capture Detector Sample	Not available.
		Nitrogen/Phosphorus Detector Sample	Not available.
		Flame Photometric Detector Checkout Sample (40)	Not available.
		Headspace OQ/PV Standard	Not available.

Section 9. Physical and chemical properties and safety characteristics

Melting point/freezing point	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	-100 to -95°C (-148 to -139°F)
		Electron Capture Detector Sample	-107°C (-160.6°F)
		Nitrogen/Phosphorus Detector Sample	Not available.
		Flame Photometric Detector Checkout Sample (40)	-107°C (-160.6°F)
		Headspace OQ/PV Standard	-117°C (-178.6°F)
Boiling point, initial boiling point, and boiling range	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	69°C (156.2°F)
		Electron Capture Detector Sample	99°C (210.2°F)
		Nitrogen/Phosphorus Detector Sample	Not available.
		Flame Photometric Detector Checkout Sample (40)	99.2°C (210.6°F)
		Headspace OQ/PV Standard	78.3°C (172.9°F)
Flash point	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Closed cup: -22°C (-7.6°F) [Tagliabue]
		Electron Capture Detector Sample	Closed cup: -18 to 23°C (-0.4 to 73.4°F)
		Nitrogen/Phosphorus Detector Sample	Closed cup: -18 to 23°C (-0.4 to 73.4°F)
		Flame Photometric Detector Checkout Sample (40)	Open cup: 4.5°C (40.1°F)
		Headspace OQ/PV Standard	Open cup: 12.7°C (54.9°F)
Evaporation rate	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Not available.
		Electron Capture Detector Sample	>1 (butyl acetate = 1)
		Nitrogen/Phosphorus Detector Sample	Not available.
		Flame Photometric Detector Checkout Sample (40)	Not available.
		Headspace OQ/PV Standard	>4 (butyl acetate = 1)
Flammability	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Not applicable.
		Electron Capture Detector Sample	Not applicable.
		Nitrogen/Phosphorus Detector Sample	Not applicable.
		Flame Photometric Detector Checkout Sample (40)	Not applicable.
		Headspace OQ/PV Standard	Not applicable.
Lower and upper explosion limit/flammability limit	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Lower: 1.1% Upper: 7.5%
		Electron Capture Detector Sample	Lower: 1.1% Upper: 6%
		Nitrogen/Phosphorus Detector Sample	Not available.
		Flame Photometric Detector Checkout Sample (40)	Lower: 1% Upper: 6%
		Headspace OQ/PV Standard	Lower: 3.3% Upper: 19%

Section 9. Physical and chemical properties and safety characteristics

Vapour pressure :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	20 kPa (150 mm Hg)
Flame Photometric Detector Checkout Sample (40)	5.5 kPa (41 mm Hg)
Headspace OQ/PV Standard	5.7 kPa (43 mm Hg)

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Electron Capture Detector Sample						
2,2,4-trimethylpentane	21	2.8	-	150.01	20	-
Nitrogen/ Phosphorus Detector Sample						
2,2,4-trimethylpentane	21	2.8	-	150.01	20	-

Relative vapour density :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	2.97 [Air = 1]
Electron Capture Detector Sample	>1 [Air = 1]
Nitrogen/Phosphorus Detector Sample	Not available.
Flame Photometric Detector Checkout Sample (40)	3.93 [Air = 1]
Headspace OQ/PV Standard	1.7 [Air = 1]

Relative density :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	0.66
Electron Capture Detector Sample	0.69
Nitrogen/Phosphorus Detector Sample	Not available.
Flame Photometric Detector Checkout Sample (40)	Not available.
Headspace OQ/PV Standard	Not available.

Solubility(ies) :

Media	Result
Flame Ionization Detector (FID) Sample-0.33%(w/w)	
water	Insoluble
Electron Capture Detector Sample	
methanol	Insoluble
diethyl ether	Soluble
water	Insoluble
Nitrogen/Phosphorus Detector Sample	
methanol	Insoluble
diethyl ether	Soluble
water	Insoluble
Flame Photometric Detector Checkout Sample (40)	
water	Insoluble
Headspace OQ/PV Standard	
water	Soluble

Section 9. Physical and chemical properties and safety characteristics

Partition coefficient: n-octanol/water :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	3.9 to 4.11
Electron Capture Detector Sample	Not applicable.
Nitrogen/Phosphorus Detector Sample	Not applicable.
Flame Photometric Detector Checkout Sample (40)	Not applicable.
Headspace OQ/PV Standard	Not applicable.

Auto-ignition temperature :

Electron Capture Detector Sample	417°C (782.6°F)
Flame Photometric Detector Checkout Sample (40)	418°C (784.4°F)
Headspace OQ/PV Standard	422°C (791.6°F)

Ingredient name	°C	°F	Method
Flame Ionization Detector (FID) Sample-0.33%(w/w)			
n-Hexane	225	437	-
Nitrogen/Phosphorus Detector Sample			
2,2,4-trimethylpentane	418	784.4	-

Decomposition temperature :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Not available.
Electron Capture Detector Sample	Not available.
Nitrogen/Phosphorus Detector Sample	Not available.
Flame Photometric Detector Checkout Sample (40)	Not available.
Headspace OQ/PV Standard	Not available.

Viscosity :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Not available.
Electron Capture Detector Sample	Not available.
Nitrogen/Phosphorus Detector Sample	Not available.
Flame Photometric Detector Checkout Sample (40)	Not available.
Headspace OQ/PV Standard	Not available.

Particle characteristics

Median particle size :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Not applicable.
Electron Capture Detector Sample	Not applicable.
Nitrogen/Phosphorus Detector Sample	Not applicable.
Flame Photometric Detector Checkout Sample (40)	Not applicable.
Headspace OQ/PV Standard	Not applicable.

Section 10. Stability and reactivity

Reactivity	: Flame Ionization Detector (FID) Sample-0.33%(w/w)	No specific test data related to reactivity available for this product or its ingredients.
	Electron Capture Detector Sample	No specific test data related to reactivity available for this product or its ingredients.
	Nitrogen/Phosphorus Detector Sample	No specific test data related to reactivity available for this product or its ingredients.
	Flame Photometric Detector Checkout Sample (40)	No specific test data related to reactivity available for this product or its ingredients.
	Headspace OQ/PV Standard	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: Flame Ionization Detector (FID) Sample-0.33%(w/w)	The product is stable.
	Electron Capture Detector Sample	The product is stable.
	Nitrogen/Phosphorus Detector Sample	The product is stable.
	Flame Photometric Detector Checkout Sample (40)	The product is stable.
	Headspace OQ/PV Standard	The product is stable.
Possibility of hazardous reactions	: Flame Ionization Detector (FID) Sample-0.33%(w/w)	Under normal conditions of storage and use, hazardous reactions will not occur.
	Electron Capture Detector Sample	Under normal conditions of storage and use, hazardous reactions will not occur.
	Nitrogen/Phosphorus Detector Sample	Under normal conditions of storage and use, hazardous reactions will not occur.
	Flame Photometric Detector Checkout Sample (40)	Under normal conditions of storage and use, hazardous reactions will not occur.
	Headspace OQ/PV Standard	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Flame Ionization Detector (FID) Sample-0.33%(w/w)	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.
	Electron Capture Detector Sample	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.
	Nitrogen/Phosphorus Detector Sample	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.
	Flame Photometric Detector Checkout Sample (40)	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.
	Headspace OQ/PV Standard	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.

Section 10. Stability and reactivity

Incompatible materials :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Reactive or incompatible with the following materials: oxidising materials
Electron Capture Detector Sample	Reactive or incompatible with the following materials: oxidising materials
Nitrogen/Phosphorus Detector Sample	Reactive or incompatible with the following materials: oxidising materials
Flame Photometric Detector Checkout Sample (40)	Reactive or incompatible with the following materials: oxidising materials
Headspace OQ/PV Standard	Reactive or incompatible with the following materials: oxidising materials

Hazardous decomposition products :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Electron Capture Detector Sample	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Nitrogen/Phosphorus Detector Sample	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Flame Photometric Detector Checkout Sample (40)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Headspace OQ/PV Standard	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Flame Ionization Detector (FID) Sample-0.33%(w/w)				
n-Hexane	LC50 Inhalation Vapour	Rat	169.2 mg/l	4 hours
	LD50 Oral	Rat	15840 mg/kg	-
Electron Capture Detector Sample				
2,2,4-trimethylpentane	LC50 Inhalation Vapour	Rat - Male, Female	>33.52 mg/l	4 hours
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-
Nitrogen/Phosphorus Detector Sample				
2,2,4-trimethylpentane	LC50 Inhalation Vapour	Rat - Male, Female	>33.52 mg/l	4 hours
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-
Flame Photometric Detector Checkout Sample (40)				
2,2,4-trimethylpentane	LC50 Inhalation Vapour	Rat - Male, Female	>33.52 mg/l	4 hours
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-

Section 11. Toxicological information

Headspace OQ/PV Standard				
Ethanol	LC50 Inhalation Vapour	Rat	124700 mg/m³	4 hours
	LD50 Oral	Rat	7 g/kg	-
1,2-Dichlorobenzene	LC50 Inhalation Dusts and mists	Rat	8150 mg/m³	4 hours
	LD50 Dermal	Rabbit	>10 g/kg	-
	LD50 Oral	Rat	500 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Flame Ionization Detector (FID) Sample-0.33%(w/w)					
n-Hexane	Eyes - Mild irritant	Rabbit	-	10 mg	-
Headspace OQ/PV Standard					
Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	100 uL	-
1,2-Dichlorobenzene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Flame Ionization Detector (FID) Sample-0.33%(w/w)			
n-Hexane	Category 3	-	Narcotic effects
Electron Capture Detector Sample			
2,2,4-trimethylpentane	Category 3	-	Narcotic effects
Nitrogen/Phosphorus Detector Sample			
2,2,4-trimethylpentane	Category 3	-	Narcotic effects
Flame Photometric Detector Checkout Sample (40)			
2,2,4-trimethylpentane	Category 3	-	Narcotic effects
Headspace OQ/PV Standard			
1,2-Dichlorobenzene	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Flame Ionization Detector (FID) Sample-0.33%(w/w) n-Hexane	 Category 2	 -	 -

Aspiration hazard

Name	Result
Flame Ionization Detector (FID) Sample-0.33%(w/w)	
Flame Ionization Detector (FID) Sample-0.33%(w/w)	ASPIRATION HAZARD - Category 1
n-Hexane	ASPIRATION HAZARD - Category 1
Electron Capture Detector Sample	
Electron Capture Detector Sample	ASPIRATION HAZARD - Category 1
2,2,4-trimethylpentane	ASPIRATION HAZARD - Category 1
Nitrogen/Phosphorus Detector Sample	
Nitrogen/Phosphorus Detector Sample	ASPIRATION HAZARD - Category 1
2,2,4-trimethylpentane	ASPIRATION HAZARD - Category 1
Flame Photometric Detector Checkout Sample (40)	
Flame Photometric Detector Checkout Sample (40)	ASPIRATION HAZARD - Category 1
2,2,4-trimethylpentane	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Electron Capture Detector Sample	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Nitrogen/Phosphorus Detector Sample	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Flame Photometric Detector Checkout Sample (40)	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Headspace OQ/PV Standard	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Causes eye irritation.
Electron Capture Detector Sample	No known significant effects or critical hazards.
Nitrogen/Phosphorus Detector Sample	No known significant effects or critical hazards.
Flame Photometric Detector Checkout Sample (40)	No known significant effects or critical hazards.
Headspace OQ/PV Standard	Causes serious eye irritation.

Inhalation :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Electron Capture Detector Sample	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Nitrogen/Phosphorus Detector Sample	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Flame Photometric Detector Checkout Sample (40)	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Headspace OQ/PV Standard	No known significant effects or critical hazards.

Skin contact :

Flame Ionization Detector (FID) Sample-0.33%(w/w)	Causes skin irritation.
Electron Capture Detector Sample	Causes skin irritation.
Nitrogen/Phosphorus Detector Sample	Causes skin irritation.
Flame Photometric Detector Checkout Sample (40)	Causes skin irritation.

Section 11. Toxicological information

	Headspace OQ/PV Standard	No known significant effects or critical hazards.
Ingestion :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
	Electron Capture Detector Sample	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
	Nitrogen/Phosphorus Detector Sample	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
	Flame Photometric Detector Checkout Sample (40)	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
	Headspace OQ/PV Standard	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Adverse symptoms may include the following: pain or irritation watering redness
	Electron Capture Detector Sample	Adverse symptoms may include the following: pain or irritation watering redness
	Nitrogen/Phosphorus Detector Sample	Adverse symptoms may include the following: pain or irritation watering redness
	Flame Photometric Detector Checkout Sample (40)	Adverse symptoms may include the following: pain or irritation watering redness
	Headspace OQ/PV Standard	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation :	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced foetal weight increase in foetal deaths skeletal malformations
	Electron Capture Detector Sample	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	Nitrogen/Phosphorus Detector Sample	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	Flame Photometric Detector Checkout Sample (40)	Adverse symptoms may include the following:

Section 11. Toxicological information

			nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
		Headspace OQ/PV Standard	No specific data.
Skin contact	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Adverse symptoms may include the following: irritation redness reduced foetal weight increase in foetal deaths skeletal malformations
		Electron Capture Detector Sample	Adverse symptoms may include the following: irritation redness
		Nitrogen/Phosphorus Detector Sample	Adverse symptoms may include the following: irritation redness
		Flame Photometric Detector Checkout Sample (40)	Adverse symptoms may include the following: irritation redness
		Headspace OQ/PV Standard	No specific data.
Ingestion	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Adverse symptoms may include the following: nausea or vomiting reduced foetal weight increase in foetal deaths skeletal malformations
		Electron Capture Detector Sample	Adverse symptoms may include the following: nausea or vomiting
		Nitrogen/Phosphorus Detector Sample	Adverse symptoms may include the following: nausea or vomiting
		Flame Photometric Detector Checkout Sample (40)	Adverse symptoms may include the following: nausea or vomiting
		Headspace OQ/PV Standard	No specific data.

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

Section 11. Toxicological information

General	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	May cause damage to organs through prolonged or repeated exposure.
		Electron Capture Detector Sample	No known significant effects or critical hazards.
		Nitrogen/Phosphorus Detector Sample	No known significant effects or critical hazards.
		Flame Photometric Detector Checkout Sample (40)	No known significant effects or critical hazards.
		Headspace OQ/PV Standard	No known significant effects or critical hazards.
Carcinogenicity	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	No known significant effects or critical hazards.
		Electron Capture Detector Sample	No known significant effects or critical hazards.
		Nitrogen/Phosphorus Detector Sample	No known significant effects or critical hazards.
		Flame Photometric Detector Checkout Sample (40)	No known significant effects or critical hazards.
		Headspace OQ/PV Standard	No known significant effects or critical hazards.
Mutagenicity	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	No known significant effects or critical hazards.
		Electron Capture Detector Sample	No known significant effects or critical hazards.
		Nitrogen/Phosphorus Detector Sample	No known significant effects or critical hazards.
		Flame Photometric Detector Checkout Sample (40)	No known significant effects or critical hazards.
		Headspace OQ/PV Standard	No known significant effects or critical hazards.
Reproductive toxicity	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Suspected of damaging fertility or the unborn child.
		Electron Capture Detector Sample	No known significant effects or critical hazards.
		Nitrogen/Phosphorus Detector Sample	No known significant effects or critical hazards.
		Flame Photometric Detector Checkout Sample (40)	No known significant effects or critical hazards.
		Headspace OQ/PV Standard	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Flame Ionization Detector (FID) Sample-0.33%(w/w)					
n-Hexane	15840	N/A	N/A	169.2	N/A
Headspace OQ/PV Standard					
Ethanol	7000	N/A	N/A	124.7	N/A
1,2-Dichlorobenzene	500	N/A	N/A	N/A	8.15

Other information	:	Flame Ionization Detector (FID) Sample-0.33%(w/w)	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.
		Headspace OQ/PV Standard	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Flame Ionization Detector (FID) Sample-0.33%(w/w)			
n-Hexane	Acute LC50 2500 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
Headspace OQ/PV Standard			
Ethanol	Acute EC50 3306 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute EC50 1074 mg/l Fresh water	Crustaceans - *Cypris subglobosa*	48 hours
	Acute LC50 5680 mg/l Fresh water	Daphnia - *Daphnia magna* - Neonate	48 hours
	Acute LC50 11000000 µg/l Marine water	Fish - *Alburnus alburnus*	96 hours
	Chronic NOEC 4.995 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Chronic NOEC 100 ul/L Fresh water	Daphnia - *Daphnia magna* - Neonate	21 days
1,2-Dichlorobenzene	Acute EC50 12.8 mg/l	Algae - *Phaeodactylum tricornutum*	72 hours
	Acute EC50 0.74 mg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 4.52 ppm Marine water	Crustaceans - *Americamysis bahia*	48 hours
	Acute LC50 1.4 mg/l Fresh water	Fish - *Gibelion catla*	96 hours
	Chronic NOEC 5 mg/l	Algae - *Chlorella vulgaris*	4 days
	Chronic NOEC 0.63 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Flame Ionization Detector (FID) Sample-0.33%(w/w)			
n-Hexane	-	-	Readily
Electron Capture Detector Sample			
2,2,4-trimethylpentane	-	-	Inherent
Nitrogen/Phosphorus Detector Sample			
2,2,4-trimethylpentane	-	-	Inherent
Flame Photometric Detector Checkout Sample (40)			
2,2,4-trimethylpentane	-	-	Inherent
Headspace OQ/PV Standard			
Ethanol	-	-	Readily
1,2-Dichlorobenzene	-	-	Not readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Flame Ionization Detector (FID) Sample-0.33%(w/w)			
Flame Ionization Detector (FID) Sample-0.33%(w/w)	3.9 to 4.11	-	High
n-Hexane	4	501.187	High
Electron Capture Detector Sample			
2,2,4-trimethylpentane	4.08	231	Low
Nitrogen/Phosphorus Detector Sample			
2,2,4-trimethylpentane	4.08	231	Low
Flame Photometric Detector Checkout Sample (40)			
2,2,4-trimethylpentane	4.08	231	Low
Headspace OQ/PV Standard			
Ethanol	-0.35	0.5	Low
1,2-Dichlorobenzene	3.38	150 to 230	Low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

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

Section 13. Disposal considerations

Disposal methods : 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

Additional information

Remarks: De minimis quantities

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

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

6

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

New Zealand : Not determined.

United States : Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 25/08/2023

Date of previous issue : 31/05/2022

Version : 9

Key to abbreviations : ADG = Australian Dangerous Goods
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations

Procedure used to derive the classification

Classification	Justification
Flame Ionization Detector (FID) Sample-0.33%(w/w)	
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
REPRODUCTIVE TOXICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - REPEATED	Calculation method

Section 16. Any other relevant information

EXPOSURE - Category 2	
ASPIRATION HAZARD - Category 1	Expert judgment
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	Calculation method
Electron Capture Detector Sample	
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3	Calculation method
ASPIRATION HAZARD - Category 1	Expert judgment
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1	Calculation method
Nitrogen/Phosphorus Detector Sample	
FLAMMABLE LIQUIDS - Category 2	Expert judgment
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3	Calculation method
ASPIRATION HAZARD - Category 1	Expert judgment
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1	Calculation method
Flame Photometric Detector Checkout Sample (40)	
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3	Calculation method
ASPIRATION HAZARD - Category 1	Expert judgment
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1	Calculation method
Headspace OQ/PV Standard	
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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