

SAFETY DATA SHEET



3MM PRB SAMPL KIT - INDIRECT DET, Part Number 190350500

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

This product is considered an article. This Safety Data Sheet is written based on the encapsulated substance or mixture in this article.

1.1 Product identifier

Product name	: 3MM PRB SAMPL KIT - INDIRECT DET, Part Number 190350500		
Part No. (Kit)	: 190350500		
Part No.	: 4Hz 1% H ₂ O/D ₂ O	190350601	
	Autotest, no salt	190350606	
	1H S/N	190350670	
	19F S/N	190350682	
	1H Lineshape	190350689	
	13C S/N ASTM doped	190350691	
	ID 1	190350696	
	ID 2	190350697	

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

Identified uses		
Analytical chemistry.		
4Hz 1% H ₂ O/D ₂ O	250	µl
Autotest, no salt	250	µl
1H S/N	250	µl
19F S/N	250	µl
1H Lineshape	250	µl
13C S/N ASTM doped	250	µl
ID 1	250	µl
ID 2	250	µl

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
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

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

2.1 Classification of the substance or mixture

SECTION 2: Hazards identification

Product definition	:	4Hz 1% H2O/D2O	Mixture (encapsulated in article)
		Autotest, no salt	Mixture (encapsulated in article)
		1H S/N	Mixture (encapsulated in article)
		19F S/N	Mixture (encapsulated in article)
		1H Lineshape	Mixture (encapsulated in article)
		13C S/N ASTM doped	Mixture (encapsulated in article)
		ID 1	Mixture (encapsulated in article)
		ID 2	Mixture (encapsulated in article)

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**1H S/N**

H302	ACUTE TOXICITY: ORAL - Category 4
H315	SKIN CORROSION/IRRITATION - Category 2
H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
H351	CARCINOGENICITY - Category 2
H335 and H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) [kidneys and liver] - Category 2

19F S/N

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY: ORAL - Category 4
H315	SKIN CORROSION/IRRITATION - Category 2
H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
H340	GERM CELL MUTAGENICITY - Category 1B
H350	CARCINOGENICITY - Category 1A
H335 and H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3
H372o	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): ORAL [blood system] - Category 1
H372i	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): INHALATION [blood system] - Category 1

1H Lineshape

H225	FLAMMABLE LIQUIDS - Category 2
H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
H351	CARCINOGENICITY - Category 2
H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Narcotic effects] - Category 3

13C S/N ASTM doped

H225	FLAMMABLE LIQUIDS - Category 2
H302	ACUTE TOXICITY: ORAL - Category 4
H315	SKIN CORROSION/IRRITATION - Category 2
H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
H340	GERM CELL MUTAGENICITY - Category 1B
H350	CARCINOGENICITY - Category 1A
H335 and H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3
H372o	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): ORAL [blood system, kidneys and liver] - Category 1
H372i	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): INHALATION [blood system] - Category 1

ID 1

H301	ACUTE TOXICITY: ORAL - Category 3
H315	SKIN CORROSION/IRRITATION - Category 2
H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
H351	CARCINOGENICITY - Category 2
H335 and H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) [kidneys and liver] - Category 2

ID 2

SECTION 2: Hazards identification

H373o SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): ORAL [kidneys and liver] - Category 2

Ingredients of unknown ecotoxicity :

4Hz 1% H2O/D2O	Not applicable.
Autotest, no salt	Not applicable.
1H S/N	Not applicable.
19F S/N	Not applicable.
1H Lineshape	Not applicable.
13C S/N ASTM doped	Not applicable.
ID 1	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 2%
ID 2	Not applicable.

Classification according to Directive 1999/45/EC [DPD]

4Hz 1% H2O/D2O	The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.
Autotest, no salt	The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.
1H S/N	The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
19F S/N	The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
1H Lineshape	The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
13C S/N ASTM doped	The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
ID 1	The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
ID 2	The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification :

4Hz 1% H2O/D2O	Not classified.
Autotest, no salt	Not classified.
1H S/N	Carc. Cat. 3; R40 Xn; R22, R48/20/22 Xi; R38
19F S/N	F; R11 Carc. Cat. 1; R45 Muta. Cat. 2; R46 T; R48/23/24/25 Xi; R36/38
1H Lineshape	F; R11 Carc. Cat. 3; R40 Xi; R36 R66, R67
13C S/N ASTM doped	R10 Carc. Cat. 1; R45 Muta. Cat. 2; R46 T; R48/23/24/25 Xi; R36/37/38
ID 1	Carc. Cat. 3; R40 Xn; R22, R48/20/22 Xi; R38
ID 2	Not classified.

Physical/chemical hazards :

4Hz 1% H2O/D2O	Not applicable.
Autotest, no salt	Not applicable.
1H S/N	Not applicable.
19F S/N	Highly flammable.
1H Lineshape	Highly flammable.
13C S/N ASTM doped	Flammable.
ID 1	Not applicable.
ID 2	Not applicable.

SECTION 2: Hazards identification

Human health hazards	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N	Not applicable. Not applicable. Limited evidence of a carcinogenic effect. Harmful if swallowed. Harmful: danger of serious damage to health in case of prolonged exposure through inhalation and if swallowed. Irritating to skin.
	19F S/N	May cause cancer. May cause heritable genetic damage. Also toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Irritating to eyes and skin.
	1H Lineshape	Limited evidence of a carcinogenic effect. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.
	13C S/N ASTM doped	May cause cancer. May cause heritable genetic damage. Also toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.
	ID 1	Limited evidence of a carcinogenic effect. Harmful if swallowed. Harmful: danger of serious damage to health in case of prolonged exposure through inhalation and if swallowed. Irritating to skin.
	ID 2	Not applicable.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal word

: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No signal word. No signal word. Warning Danger Danger Danger Danger Warning
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Hazard statements

: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N	No known significant effects or critical hazards. No known significant effects or critical hazards. GHS07 - Harmful if swallowed. Causes skin irritation. May cause respiratory irritation. Causes serious eye irritation. May cause drowsiness or dizziness. GHS08 - Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. (kidneys, liver)
19F S/N	GHS02 - Highly flammable liquid and vapour. GHS07 - Harmful if swallowed. Causes skin irritation. May cause respiratory irritation. Causes serious eye irritation. May cause drowsiness or dizziness. GHS08 - May cause genetic defects. May cause cancer. Causes damage to organs through prolonged or repeated

SECTION 2: Hazards identification

1H Lineshape	exposure if inhaled. (blood system) Causes damage to organs through prolonged or repeated exposure if swallowed. (blood system) GHS02 - Highly flammable liquid and vapour. GHS07 - Causes serious eye irritation. May cause drowsiness or dizziness. GHS08 - Suspected of causing cancer.
13C S/N ASTM doped	GHS02 - Highly flammable liquid and vapour. GHS07 - Harmful if swallowed. Causes skin irritation. May cause respiratory irritation. Causes serious eye irritation. May cause drowsiness or dizziness. GHS08 - May cause genetic defects. May cause cancer. Causes damage to organs through prolonged or repeated exposure if inhaled. (blood system) Causes damage to organs through prolonged or repeated exposure if swallowed. (blood system, kidneys, liver)
ID 1	GHS06 - Toxic if swallowed. GHS07 - Causes skin irritation. May cause respiratory irritation. Causes serious eye irritation. May cause drowsiness or dizziness. GHS08 - Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. (kidneys, liver)
ID 2	GHS08 - May cause damage to organs through prolonged or repeated exposure if swallowed. (kidneys, liver)

Precautionary statements

Prevention

: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N	Not applicable. Not applicable. P201 - Obtain special instructions before use. P280 - Wear protective gloves. P273 - Avoid release to the environment. P260 - Do not breathe vapour.
19F S/N	P201 - Obtain special instructions before use. P280 - Wear protective gloves. Wear eye or face protection. P210 - Keep away from heat, sparks, open flames and hot surfaces. - No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P273 - Avoid release to the environment. P260 - Do not breathe vapour.
1H Lineshape	P201 - Obtain special instructions before use. P280 - Wear protective gloves. Wear eye or face protection. P210 - Keep away from heat, sparks, open flames and hot surfaces. - No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P273 - Avoid release to the environment.
13C S/N ASTM doped	P201 - Obtain special instructions before use. P280 - Wear protective gloves. Wear eye or face protection.

SECTION 2: Hazards identification

		P210 - Keep away from heat, sparks, open flames and hot surfaces. - No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P273 - Avoid release to the environment. P260 - Do not breathe vapour. P201 - Obtain special instructions before use. P280 - Wear protective gloves. P273 - Avoid release to the environment. P260 - Do not breathe vapour. P280 - Wear eye or face protection. P260 - Do not breathe vapour. P264 - Wash hands thoroughly after handling.
	ID 1	Not applicable. Not applicable. P314 - Get medical attention if you feel unwell. P301 + P312 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
	ID 2	P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Response	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N	P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	19F S/N	P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	1H Lineshape	P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	13C S/N ASTM doped	P314 - Get medical attention if you feel unwell. P301 + P312 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
	ID 1	P314 - Get medical attention if you feel unwell. P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes.
	ID 2	Not applicable. Not applicable. P405 - Store locked up. P235 - Keep cool. P235 - Keep cool. P235 - Keep cool.
Storage	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped	P405 - Store locked up. Not applicable.
	ID 1	Not applicable. Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	ID 2	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Disposal	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	19F S/N	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	1H Lineshape	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	13C S/N ASTM doped	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	ID 1	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	ID 2	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

SECTION 2: Hazards identification

Hazardous ingredients	: 1H S/N (² H)Chloroform	
	19F S/N (² H ₆)Benzene	
	1H Lineshape (² H ₆)Acetone Trichloromethane	
	13C S/N ASTM doped (² H ₆)Benzene 1,4-Dioxane	
	ID 1 (² H)Chloroform Iodomethane (¹³ C)	
	ID 2 di[(² H ₃)Methyl] sulphoxide	
Supplemental label elements	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.

Special packaging requirements

Tactile warning of danger	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable. Not applicable.
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2.3 Other hazards

Other hazards which do not result in classification	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not available. Not available. Not available. Not available. Not available. Defatting to the skin. Not available. Not available.
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SECTION 3: Composition/information on ingredients

This article, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. The substance or mixture is encapsulated in the article. Only if released due to use or processing of the article in a manner not in accordance with the product's directions for use it may present potential health and safety hazards.

Substance/mixture	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Mixture (encapsulated in article) Mixture (encapsulated in article) Mixture (encapsulated in article) Mixture (encapsulated in article) Mixture (encapsulated in article) Mixture (encapsulated in article) Mixture (encapsulated in article) Mixture (encapsulated in article)
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SECTION 3: Composition/information on ingredients

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
Autotest, no salt Methanol (¹³ C)	CAS: 14742-26-8	0.1-1	F; R11	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Repr. 1B, H360FD STOT SE 1, H370 STOT SE 3, H335	[1]
1H S/N (² H)Chloroform	EC: 212-742-4 CAS: 865-49-6 Index: 602-006-00-4	>=90	Carc. Cat. 3; R40 Xn; R22, R48/20/22 Xi; R38	Acute Tox. 3, H301 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 and H336 STOT RE 2, H373	[1] [2]
19F S/N (² H ₆)Benzene	EC: 214-061-8 CAS: 1076-43-3 Index: 601-020-00-8	>=90	F; R11 Carc. Cat. 1; R45 Muta. Cat. 2; R46 T; R48/23/24/25 Xn; R65 Xi; R36/38	Flam. Liq. 2, H225 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 1B, H340 Carc. 1A, H350 STOT SE 3, H335 and H336 STOT RE 1, H372o STOT RE 1, H372i Asp. Tox. 1, H304	[1] [2]
1H Lineshape (² H ₆)Acetone	EC: 211-563-9 CAS: 666-52-4 Index: 606-001-00-8	>=90	F; R11 Xi; R36 R66, R67	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	[1] [2]
Trichloromethane	EC: 200-663-8 CAS: 67-66-3 Index: 602-006-00-4	1-5	Carc. Cat. 3; R40 Xn; R22, R48/20/22 Xi; R38	Acute Tox. 3, H301 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 and H336i STOT RE 2, H373	[1] [2]
13C S/N ASTM doped (² H ₆)Benzene	EC: 214-061-8 CAS: 1076-43-3 Index: 601-020-00-8	50-75	F; R11 Carc. Cat. 1; R45 Muta. Cat. 2; R46 T; R48/23/24/25 Xn; R65 Xi; R36/38	Flam. Liq. 2, H225 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 1B, H340 Carc. 1A, H350 STOT SE 3, H335 and H336 STOT RE 1, H372o STOT RE 1, H372i Asp. Tox. 1, H304	[1] [2]
1,4-Dioxane	EC: 204-661-8 CAS: 123-91-1 Index: 603-024-00-5	35-50	F; R11 R19 Carc. Cat. 3; R40 Xi; R36/37 R66	Flam. Liq. 2, H225 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 STOT RE 1, H372o	[1] [2]

SECTION 3: Composition/information on ingredients

ID 1 (² H)Chloroform	EC: 212-742-4 CAS: 865-49-6 Index: 602-006-00-4	>=90	Carc. Cat. 3; R40 Xn; R22, R48/20/22 Xi; R38	Acute Tox. 3, H301 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 and H336 STOT RE 2, H373	[1] [2]
Iodomethane (¹³ C)	CAS: 4227-95-6 Index: 602-005-00-9	1-3	Carc. Cat. 3; R40 T; R23/25 Xn; R21 Xi; R37/38	Acute Tox. 3, H301 Acute Tox. 4, H312 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335	[1] [2]
Trimethyl phosphite	EC: 204-471-5 CAS: 121-45-9	1-3	R10 Xn; R21/22 Xi; R36/37/38	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 3, H311 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1] [2]
ID 2 di[(² H ₃)Methyl] sulphoxide	EC: 200-664-3 CAS: 2206-27-1	>=90	Not classified.	STOT RE 2, H373o	[1]
Benzamide (¹⁵ N)	CAS: 31656-62-9	1-3	Xn; R22 See Section 16 for the full text of the R-phrases declared above.	Acute Tox. 4, H302 See Section 16 for the full text of the H statements declared above.	[1]

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

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: 4Hz 1% H2O/D2O	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Autotest, no salt	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	1H S/N	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.
	19F S/N	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.
	1H Lineshape	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.
	13C S/N ASTM doped	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove

SECTION 4: First aid measures

		any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	ID 1	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.
	ID 2	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 following exposure or if feeling unwell.
Inhalation	: 4Hz 1% H2O/D2O	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Autotest, no salt	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	1H S/N	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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	19F S/N	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.
	1H Lineshape	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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	13C S/N ASTM doped	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-

SECTION 4: First aid measures

		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.
	ID 1	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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	ID 2	Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. 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	: 4Hz 1% H2O/D2O	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Autotest, no salt	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	1H S/N	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.
	19F S/N	Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	1H Lineshape	Wash skin thoroughly with soap and water or use recognised skin cleanser. 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.
	13C S/N ASTM doped	Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	ID 1	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.
	ID 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean

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Ingestion	: 4Hz 1% H2O/D2O	shoes thoroughly before reuse.
	Autotest, no salt	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	1H S/N	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	19F S/N	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 necessary, call a poison center or physician. 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.
	1H Lineshape	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 necessary, call a poison center or physician. 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.
	13C S/N ASTM doped	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 necessary, call a poison center or physician. Never give anything by mouth to an

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ID 1	<p>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.</p> <p>Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. 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.</p>
ID 2	<p>Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. 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.</p>
<p>Protection of first-aiders : 4Hz 1% H2O/D2O</p> <p>Autotest, no salt</p> <p>1H S/N</p> <p>19F S/N</p> <p>1H Lineshape</p> <p>13C S/N ASTM doped</p> <p>ID 1</p>	<p>No action shall be taken involving any personal risk or without suitable training.</p> <p>No action shall be taken involving any personal risk or without suitable training.</p> <p>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.</p> <p>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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.</p> <p>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.</p> <p>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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.</p> <p>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</p>

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		to the person providing aid to give mouth-to-mouth resuscitation.
ID 2		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.

4.2 Most important symptoms and effects, both acute and delayed**Potential acute health effects**

Eye contact	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No known significant effects or critical hazards. No known significant effects or critical hazards. Causes serious eye irritation. Causes serious eye irritation. Causes serious eye irritation. Causes serious eye irritation. Causes serious eye irritation. No known significant effects or critical hazards.
Inhalation	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No known significant effects or critical hazards. No known significant effects or critical hazards. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. No known significant effects or critical hazards.
Skin contact	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No known significant effects or critical hazards. No known significant effects or critical hazards. Causes skin irritation. Causes skin irritation. Defatting to the skin. Defatting to the skin. May cause skin dryness and irritation. Causes skin irritation. Defatting to the skin. Causes skin irritation. No known significant effects or critical hazards.
Ingestion	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No known significant effects or critical hazards. No known significant effects or critical hazards. Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach. Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach. Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach. Toxic if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach. No known significant effects or critical hazards.

Over-exposure signs/symptoms

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Eye contact	: 4Hz 1% H2O/D2O	No specific data.
	Autotest, no salt	No specific data.
	1H S/N	Adverse symptoms may include the following: pain or irritation watering redness
	19F S/N	Adverse symptoms may include the following: pain or irritation watering redness
	1H Lineshape	Adverse symptoms may include the following: pain or irritation watering redness
	13C S/N ASTM doped	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	ID 1	Adverse symptoms may include the following: pain or irritation watering redness
	ID 2	No specific data.
	: 4Hz 1% H2O/D2O	No specific data.
	Autotest, no salt	No specific data.
	1H S/N	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	19F S/N	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	1H Lineshape	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	13C S/N ASTM doped	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	ID 1	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	ID 2	No specific data.

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Skin contact	:	4Hz 1% H2O/D2O	No specific data.		
		Autotest, no salt	No specific data.		
		1H S/N	Adverse symptoms may include the following: irritation redness		
		19F S/N	Adverse symptoms may include the following: irritation redness dryness cracking		
		1H Lineshape	Adverse symptoms may include the following: irritation dryness cracking		
		13C S/N ASTM doped	Adverse symptoms may include the following: irritation redness dryness cracking		
		ID 1	Adverse symptoms may include the following: irritation redness		
		ID 2	No specific data.		
		Ingestion	:	4Hz 1% H2O/D2O	No specific data.
				Autotest, no salt	No specific data.
1H S/N	No specific data.				
19F S/N	No specific data.				
1H Lineshape	No specific data.				
13C S/N ASTM doped	No specific data.				
ID 1	No specific data.				
ID 2	No specific data.				

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	4Hz 1% H2O/D2O	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Autotest, no salt	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		1H S/N	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		19F S/N	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		1H Lineshape	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		13C S/N ASTM doped	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		ID 1	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
		ID 2	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	4Hz 1% H2O/D2O	No specific treatment.
		Autotest, no salt	No specific treatment.
		1H S/N	No specific treatment.
		19F S/N	No specific treatment.
		1H Lineshape	No specific treatment.
		13C S/N ASTM doped	No specific treatment.
		ID 1	No specific treatment.
		ID 2	No specific treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use dry chemical, CO ₂ , water spray (fog) or foam. Use dry chemical, CO ₂ , water spray (fog) or foam. Use dry chemical, CO ₂ , water spray (fog) or foam. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	None known. None known. None known. Do not use water jet. Do not use water jet. Do not use water jet. None known. None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. 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. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1	No specific data. No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds carbonyl halides Decomposition products may include the following materials: carbon dioxide carbon monoxide Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds carbonyl halides Decomposition products may include the following materials: carbon dioxide carbon monoxide Decomposition products may include the following materials: carbon dioxide carbon monoxide phosphorus oxides

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		halogenated compounds carbonyl halides
ID 2		Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides

5.3 Advice for firefighters

Special precautions for fire-fighters

: 4Hz 1% H2O/D2O

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.

Autotest, no salt

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.

1H S/N

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.

19F S/N

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.

1H Lineshape

Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. 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.

13C S/N ASTM doped

Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. 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.

ID 1

Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. 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.

ID 2

Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. 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.

Special protective equipment for fire-fighters

: 4Hz 1% H2O/D2O

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.

Autotest, no salt

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.

1H S/N

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.

19F S/N

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.

1H Lineshape

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full

SECTION 5: Firefighting measures

	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.
13C S/N ASTM doped	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.
ID 1	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.
ID 2	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	: 4Hz 1% H2O/D2O	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. Put on appropriate personal protective equipment.
Autotest, no salt		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. Put on appropriate personal protective equipment.
1H S/N		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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
19F S/N		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.
1H Lineshape		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.
13C S/N ASTM doped		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

SECTION 6: Accidental release measures

		<p>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.</p>
	ID 1	<p>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. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
	ID 2	<p>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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>
For emergency responders	: 4Hz 1% H2O/D2O	<p>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".</p>
	Autotest, no salt	<p>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".</p>
	1H S/N	<p>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".</p>
	19F S/N	<p>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".</p>
	1H Lineshape	<p>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".</p>
	13C S/N ASTM doped	<p>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".</p>
	ID 1	<p>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".</p>
	ID 2	<p>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".</p>
6.2 Environmental precautions	: 4Hz 1% H2O/D2O	<p>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).</p>
	Autotest, no salt	<p>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).</p>
	1H S/N	<p>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).</p>
	19F S/N	<p>Avoid dispersal of spilt material and runoff and contact with</p>

SECTION 6: Accidental release measures

	soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
1H Lineshape	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).
13C S/N ASTM doped	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).
ID 1	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).
ID 2	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).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : 4Hz 1% H2O/D2O

	Stop leak if without risk. Move containers from spill area. 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.
Autotest, no salt	Stop leak if without risk. Move containers from spill area. 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.
1H S/N	Stop leak if without risk. Move containers from spill area. 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.
19F S/N	Stop leak if without risk. Move containers from spill area. 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
1H Lineshape	Stop leak if without risk. Move containers from spill area. 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
13C S/N ASTM doped	Stop leak if without risk. Move containers from spill area. 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
ID 1	Stop leak if without risk. Move containers from spill area. 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.
ID 2	Stop leak if without risk. Move containers from spill area. 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

SECTION 6: Accidental release measures

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	: 4Hz 1% H2O/D2O	Put on appropriate personal protective equipment (see Section 8).
	Autotest, no salt	Put on appropriate personal protective equipment (see Section 8).
	1H S/N	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. 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 ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
	19F S/N	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. 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 ingest. 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.
	1H Lineshape	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. 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.
	13C S/N ASTM doped	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. 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 ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately

SECTION 7: Handling and storage

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.

ID 1

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. 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 ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

ID 2

Put on appropriate personal protective equipment (see Section 8). Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: 4Hz 1% H2O/D2O

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.

Autotest, no salt

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.

1H S/N

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.

19F S/N

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.

1H Lineshape

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.

13C S/N ASTM doped

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.

ID 1

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

SECTION 7: Handling and storage

		Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	ID 2	
7.2 Conditions for safe storage, including any incompatibilities	: 4Hz 1% H2O/D2O	Store in accordance with local regulations. 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. 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.
	Autotest, no salt	Store in accordance with local regulations. 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. 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.
	1H S/N	Store in accordance with local regulations. 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. 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.
	19F S/N	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
	1H Lineshape	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
	13C S/N ASTM doped	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

SECTION 7: Handling and storage

ID 1	all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
ID 2	Store in accordance with local regulations. 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. 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.
ID 2	Store in accordance with local regulations. 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. 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.

7.3 Specific end use(s)

Recommendations	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.
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Industrial sector specific solutions : Not applicable.

SECTION 8: Exposure controls/personal protection

Since the hazardous ingredient in this article is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
1H S/N (² H)Chloroform	EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 2 PPM 8 hour(s). TWA: 10 MG/M3 8 hour(s).
19F S/N (² H ₆)Benzene	EU OEL (Europe, 12/2009). Absorbed through skin. TWA: 1 PPM 8 hour(s). TWA: 3.25 MG/M3 8 hour(s).
1H Lineshape (² H ₆)Acetone	EU OEL (Europe, 12/2009). Notes: list of indicative occupational exposure limit values TWA: 500 PPM 8 hour(s). TWA: 1210 MG/M3 8 hour(s).
Trichloromethane	EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values

SECTION 8: Exposure controls/personal protection

<p>13C S/N ASTM doped (²H₆)Benzene</p> <p>1,4-Dioxane</p> <p>ID 1 (²H)Chloroform</p> <p>Iodomethane (¹³ C)</p> <p>Trimethyl phosphite</p>	<p>TWA: 10 MG/M3 8 hour(s). TWA: 2 PPM 8 hour(s).</p> <p>EU OEL (Europe, 12/2009). Absorbed through skin. TWA: 1 PPM 8 hour(s). TWA: 3.25 MG/M3 8 hour(s).</p> <p>EU OEL (Europe, 12/2009). Notes: list of indicative occupational exposure limit values TWA: 73 MG/M3 8 hour(s). TWA: 20 PPM 8 hour(s).</p> <p>EU OEL (Europe, 12/2009). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 2 PPM 8 hour(s). TWA: 10 MG/M3 8 hour(s).</p> <p>ACGIH TLV (United States, 2/2010). Absorbed through skin. TWA: 2 ppm 8 hour(s).</p> <p>ACGIH TLV (United States, 2/2010). TWA: 2 ppm 8 hour(s). TWA: 10 mg/m³ 8 hour(s).</p>
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Recommended monitoring procedures

- : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

No DNELs available.

Predicted effect concentrations

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.

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.

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/personal protection

- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- 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**9.1 Information on basic physical and chemical properties**Appearance

Physical state	: 4Hz 1% H2O/D2O	Liquid.
	Autotest, no salt	Liquid.
	1H S/N	Liquid.
	19F S/N	Liquid.
	1H Lineshape	Liquid.
	13C S/N ASTM doped	Liquid.
	ID 1	Liquid.
	ID 2	Liquid. [Clear.]
Colour	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	Not available.
	1H S/N	Not available.
	19F S/N	Not available.
	1H Lineshape	Not available.
	13C S/N ASTM doped	Not available.
	ID 1	Not available.
	ID 2	Colourless.
Odour	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	Not available.
	1H S/N	Not available.
	19F S/N	Not available.
	1H Lineshape	Not available.
	13C S/N ASTM doped	Not available.
	ID 1	Not available.
	ID 2	Ripe olive.
Odour threshold	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	Not available.
	1H S/N	Not available.
	19F S/N	Not available.
	1H Lineshape	Not available.
	13C S/N ASTM doped	Not available.
	ID 1	Not available.
	ID 2	Not available.
pH	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	Not available.
	1H S/N	Not available.
	19F S/N	Not available.
	1H Lineshape	Not available.
	13C S/N ASTM doped	Not available.
	ID 1	Not available.
	ID 2	Not available.
Melting point/freezing point	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	3.81°C
	1H S/N	-64°C
	19F S/N	5°C
	1H Lineshape	-95°C
	13C S/N ASTM doped	Not available.
	ID 1	-64°C
	ID 2	18 to 18.54°C

SECTION 9: Physical and chemical properties

Initial boiling point and boiling range	: 4Hz 1% H2O/D2O	101.4°C
	Autotest, no salt	101.1°C
	1H S/N	60.9°C
	19F S/N	80°C
	1H Lineshape	55.5°C
	13C S/N ASTM doped	90°C
	ID 1	60.9°C
	ID 2	189°C
Flash point	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	Not available.
	1H S/N	Not available.
	19F S/N	Closed cup: -11.11°C
	1H Lineshape	Closed cup: -17°C
	13C S/N ASTM doped	Closed cup: 21.1°C
	ID 1	Not available.
	ID 2	Closed cup: 88°C
Evaporation rate	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	Not available.
	1H S/N	Not available.
	19F S/N	Not available.
	1H Lineshape	Not available.
	13C S/N ASTM doped	Not available.
	ID 1	Not available.
	ID 2	Not available.
Flammability (solid, gas)	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	Not available.
	1H S/N	Not available.
	19F S/N	Not available.
	1H Lineshape	Not available.
	13C S/N ASTM doped	Not available.
	ID 1	Not available.
	ID 2	Not available.
Upper/lower flammability or explosive limits	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	Not available.
	1H S/N	Not available.
	19F S/N	Not available.
	1H Lineshape	Not available.
	13C S/N ASTM doped	Not available.
	ID 1	Not available.
	ID 2	Lower: 3%
Vapour pressure	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	Not available.
	1H S/N	Not available.
	19F S/N	Not available.
	1H Lineshape	Not available.
	13C S/N ASTM doped	Not available.
	ID 1	Not available.
	ID 2	0.061 kPa [20°C]
Vapour density	: 4Hz 1% H2O/D2O	Not available.
	Autotest, no salt	Not available.
	1H S/N	Not available.
	19F S/N	Not available.
	1H Lineshape	Not available.
	13C S/N ASTM doped	Not available.
	ID 1	Not available.
	ID 2	1.04 [Air = 1]

SECTION 9: Physical and chemical properties

Relative density	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	1.107 1.1 [(D2O)] 1.5 Not available. 0.872 0.98 1500 1.18
Solubility(ies)	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. Very slightly soluble in the following materials: cold water and hot water. Insoluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water, hot water and acetone. Easily soluble in the following materials: cold water and hot water. Very slightly soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Auto-ignition temperature	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not available. Not available. Not available. Not available. Not available. Not available. Not available. 215°C
Decomposition temperature	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Viscosity	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Explosive properties	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped	Not available. Not available. Not available. May form explosive mixtures with air. Vapours may form explosive mixtures with air. Slightly explosive in the presence of the following materials or conditions: acids.

SECTION 9: Physical and chemical properties

	Forms explosive peroxides on prolonged storage.
ID 1	Not available.
ID 2	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: 4Hz 1% H2O/D2O	No specific test data related to reactivity available for this product or its ingredients.
	Autotest, no salt	No specific test data related to reactivity available for this product or its ingredients.
	1H S/N	No specific test data related to reactivity available for this product or its ingredients.
	19F S/N	No specific test data related to reactivity available for this product or its ingredients.
	1H Lineshape	No specific test data related to reactivity available for this product or its ingredients.
	13C S/N ASTM doped	No specific test data related to reactivity available for this product or its ingredients.
	ID 1	No specific test data related to reactivity available for this product or its ingredients.
	ID 2	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: 4Hz 1% H2O/D2O	The product is stable.
	Autotest, no salt	The product is stable.
	1H S/N	The product is stable.
	19F S/N	The product is stable.
	1H Lineshape	The product is stable.
	13C S/N ASTM doped	The product is stable.
	ID 1	The product is stable.
	ID 2	The product is stable.
10.3 Possibility of hazardous reactions	: 4Hz 1% H2O/D2O	Under normal conditions of storage and use, hazardous reactions will not occur.
	Autotest, no salt	Under normal conditions of storage and use, hazardous reactions will not occur.
	1H S/N	Under normal conditions of storage and use, hazardous reactions will not occur.
	19F S/N	Under normal conditions of storage and use, hazardous reactions will not occur.
	1H Lineshape	Under normal conditions of storage and use, hazardous reactions will not occur.
	13C S/N ASTM doped	Under normal conditions of storage and use, hazardous reactions will not occur.
	ID 1	Under normal conditions of storage and use, hazardous reactions will not occur.
	ID 2	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: 4Hz 1% H2O/D2O	No specific data.
	Autotest, no salt	No specific data.
	1H S/N	No specific data.
	19F S/N	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.
	1H Lineshape	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.
	13C S/N ASTM doped	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.

SECTION 10: Stability and reactivity

ID 1 No specific data.
ID 2 No specific data.

10.5 Incompatible materials

: 4Hz 1% H2O/D2O No specific data.
Autotest, no salt No specific data.
1H S/N No specific data.
19F S/N Highly reactive or incompatible with the following materials:
oxidizing materials
1H Lineshape Highly reactive or incompatible with the following materials:
oxidizing materials
13C S/N ASTM doped Reactive or incompatible with the following materials:
oxidizing materials
ID 1 No specific data.
ID 2 Reactive or incompatible with the following materials:
oxidizing materials

10.6 Hazardous decomposition products

: 4Hz 1% H2O/D2O Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Autotest, no salt Under normal conditions of storage and use, hazardous decomposition products should not be produced.
1H S/N Under normal conditions of storage and use, hazardous decomposition products should not be produced.
19F S/N Under normal conditions of storage and use, hazardous decomposition products should not be produced.
1H Lineshape Under normal conditions of storage and use, hazardous decomposition products should not be produced.
13C S/N ASTM doped Under normal conditions of storage and use, hazardous decomposition products should not be produced.
ID 1 Under normal conditions of storage and use, hazardous decomposition products should not be produced.
ID 2 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
1H S/N (² H)Chloroform	LC50 Inhalation Vapour LD50 Dermal LD50 Oral	Rat Rabbit Rat	47702 mg/m3 >20 g/kg 300 mg/kg	4 hours - -
19F S/N (² H ₆)Benzene	LD50 Oral	Rat	930 mg/kg	-
1H Lineshape (² H ₆)Acetone Trichloromethane	LD50 Oral LC50 Inhalation Vapour LD50 Dermal LD50 Oral	Rat Rat Rabbit Rat	5800 mg/kg 47702 mg/m3 >20 g/kg 300 mg/kg	- 4 hours - -
13C S/N ASTM doped (² H ₆)Benzene 1,4-Dioxane	LD50 Oral LD50 Oral	Rat Rat	930 mg/kg 4200 mg/kg	- -
ID 1 (² H)Chloroform	LC50 Inhalation Vapour LD50 Dermal LD50 Oral	Rat Rabbit Rat	47702 mg/m3 >20 g/kg 300 mg/kg	4 hours - -
Iodomethane (¹³ C)	LC50 Inhalation Vapour LD50 Oral	Rat Rat	1300 mg/m3 76 mg/kg	4 hours -
Trimethyl phosphite	LC50 Inhalation Vapour	Rat	182000 mg/m3	1 hours

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ID 2 di[(² H ₃)Methyl] sulphoxide	LD50 Dermal	Rabbit	933.8 mg/kg	-
	LD50 Oral	Rat	1350 mg/kg	-
	LD50 Dermal	Rat	40000 mg/kg	-
	LD50 Oral	Rat	14500 mg/kg	-

Acute toxicity estimates

Route	ATE value
Autotest, no salt	
Oral	100000 mg/kg
Dermal	229687.5 mg/kg
Inhalation (vapours)	3000 mg/l
1H S/N	
Oral	300.3 mg/kg
19F S/N	
Oral	930.5 mg/kg
1H Lineshape	
Oral	30000 mg/kg
13C S/N ASTM doped	
Oral	1563.3 mg/kg
ID 1	
Oral	294.2 mg/kg
Dermal	50505.5 mg/kg
Inhalation (vapours)	130 mg/l
ID 2	
Oral	25000 mg/kg

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1H S/N (² H)Chloroform	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
19F S/N (² H ₆)Benzene	Eyes - Moderate irritant	Rabbit	-	88 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
1H Lineshape (² H ₆)Acetone	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
Trichloromethane	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

SECTION 11: Toxicological information

13C S/N ASTM doped (² H ₆)Benzene	Eyes - Moderate irritant	Rabbit	-	88 milligrams	-	
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-	
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-	
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-	
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-	
	1,4-Dioxane	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
		Skin - Mild irritant	Rabbit	-	515 milligrams	-
	ID 1 (² H)Chloroform	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
		Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Iodomethane (¹³ C)	Eyes - Severe irritant	Rabbit	-	-	-
Skin - Mild irritant		Rat	-	-	-	
Skin - Severe irritant		Rabbit	-	-	-	
Trimethyl phosphite	Eyes - Mild irritant	Rabbit	-	0.1 Milliliters	-	
	Skin - Severe irritant	Rabbit	-	500 milligrams	-	
ID 2 di[(² H ₃)Methyl] sulphoxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-	
	Eyes - Mild irritant	Rabbit	-	100 milligrams	-	
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-	
	Skin - Mild irritant	Rabbit	-	100 milligrams	-	

Sensitiser

Conclusion/Summary : Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Autotest, no salt Methanol (¹³ C)	Category 1	Not determined	central nervous system (CNS) Respiratory tract irritation
	Category 3	Not determined	
1H S/N (² H)Chloroform	Category 3	Not determined	Respiratory tract irritation and Narcotic effects
19F S/N (² H ₆)Benzene	Category 3	Not determined	Respiratory tract irritation and Narcotic effects
1H Lineshape (² H ₆)Acetone	Category 3	Not determined	Narcotic effects

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Trichloromethane	Category 3	Inhalation	Respiratory tract irritation and Narcotic effects
13C S/N ASTM doped (² H ₆)Benzene	Category 3	Not determined	Respiratory tract irritation and Narcotic effects
1,4-Dioxane	Category 3	Not determined	Respiratory tract irritation
ID 1 (² H)Chloroform	Category 3	Not determined	Respiratory tract irritation and Narcotic effects
Iodomethane (¹³ C)	Category 3	Not determined	Respiratory tract irritation
Trimethyl phosphite	Category 3	Not determined	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
1H S/N (² H)Chloroform	Category 2	Not determined	kidneys and liver
19F S/N (² H ₆)Benzene	Category 1	Oral Inhalation	blood system blood system
1H Lineshape Trichloromethane	Category 2	Not determined	kidneys and liver
13C S/N ASTM doped (² H ₆)Benzene	Category 1	Oral Inhalation	blood system blood system
1,4-Dioxane	Category 1	Oral	kidneys and liver
ID 1 (² H)Chloroform	Category 2	Not determined	kidneys and liver
ID 2 di[(² H ₃)Methyl] sulphoxide	Category 2	Oral	kidneys and liver

Aspiration hazard

Product/ingredient name	Result
19F S/N (² H ₆)Benzene	ASPIRATION HAZARD - Category 1
13C S/N ASTM doped (² H ₆)Benzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Inhalation	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N	No known significant effects or critical hazards. No known significant effects or critical hazards. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
	19F S/N	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory

SECTION 11: Toxicological information

	1H Lineshape	irritation. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
	13C S/N ASTM doped	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
	ID 1	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
	ID 2	No known significant effects or critical hazards.
Ingestion	: 4Hz 1% H2O/D2O	No known significant effects or critical hazards.
	Autotest, no salt	No known significant effects or critical hazards.
	1H S/N	Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.
	19F S/N	Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.
	1H Lineshape	Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.
	13C S/N ASTM doped	Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.
	ID 1	Toxic if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.
	ID 2	No known significant effects or critical hazards.
Skin contact	: 4Hz 1% H2O/D2O	No known significant effects or critical hazards.
	Autotest, no salt	No known significant effects or critical hazards.
	1H S/N	Causes skin irritation.
	19F S/N	Causes skin irritation. Defatting to the skin.
	1H Lineshape	Defatting to the skin. May cause skin dryness and irritation.
	13C S/N ASTM doped	Causes skin irritation. Defatting to the skin.
	ID 1	Causes skin irritation.
	ID 2	No known significant effects or critical hazards.
Eye contact	: 4Hz 1% H2O/D2O	No known significant effects or critical hazards.
	Autotest, no salt	No known significant effects or critical hazards.
	1H S/N	Causes serious eye irritation.
	19F S/N	Causes serious eye irritation.
	1H Lineshape	Causes serious eye irritation.
	13C S/N ASTM doped	Causes serious eye irritation.
	ID 1	Causes serious eye irritation.
	ID 2	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: 4Hz 1% H2O/D2O	No specific data.
	Autotest, no salt	No specific data.
	1H S/N	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	19F S/N	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	1H Lineshape	Adverse symptoms may include the following: nausea or vomiting

SECTION 11: Toxicological information

		headache drowsiness/fatigue dizziness/vertigo unconsciousness
	13C S/N ASTM doped	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	ID 1	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
	ID 2	No specific data.
Ingestion	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data. No specific data.
Skin contact	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No specific data. No specific data. Adverse symptoms may include the following: irritation redness Adverse symptoms may include the following: irritation redness dryness cracking Adverse symptoms may include the following: irritation dryness cracking Adverse symptoms may include the following: irritation redness dryness cracking Adverse symptoms may include the following: irritation redness No specific data.
Eye contact	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape	No specific data. No specific data. Adverse symptoms may include the following: pain or irritation watering redness Adverse symptoms may include the following: pain or irritation watering redness Adverse symptoms may include the following: pain or irritation watering

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13C S/N ASTM doped	redness Adverse symptoms may include the following: pain or irritation watering redness
ID 1	Adverse symptoms may include the following: pain or irritation watering redness
ID 2	No specific data.

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No known significant effects or critical hazards. No known significant effects or critical hazards. May cause damage to organs through prolonged or repeated exposure. Causes damage to organs through prolonged or repeated exposure if inhaled or swallowed. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Causes damage to organs through prolonged or repeated exposure if inhaled or swallowed. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. May cause damage to organs through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure if swallowed.
Carcinogenicity	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No known significant effects or critical hazards. No known significant effects or critical hazards. Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. May cause cancer. Risk of cancer depends on duration and level of exposure. Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. May cause cancer. Risk of cancer depends on duration and level of exposure. Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. No known significant effects or critical hazards.
Mutagenicity	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. May cause genetic defects. No known significant effects or critical hazards. May cause genetic defects. No known significant effects or critical hazards. No known significant effects or critical hazards.

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Teratogenicity	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<u>Toxicokinetics</u>		
Absorption	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Distribution	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Metabolism	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Elimination	: 4Hz 1% H2O/D2O Autotest, no salt 1H S/N 19F S/N 1H Lineshape 13C S/N ASTM doped ID 1 ID 2	Not available. Not available. Not available. Not available. Not available. Not available. Not available. Not available.
Other information	: Not available.	

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
1H S/N (² H)Chloroform	Acute EC50 13.3 mg/L Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase - 7 days	72 hours
	Acute LC50 81.5 mg/L Marine water	Crustaceans - Penaeus duorarum - 35 to 50 mm	48 hours
	Acute LC50 29000 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Acute LC50 13300 ug/L Fresh water	Fish - Lepomis macrochirus - 17.1 cm - 126.4 g	96 hours
	Chronic NOEC 6300 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	21 days
19F S/N (² H ₆)Benzene	Acute EC50 29000 ug/L Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 >1360000 ug/L Fresh water	Algae - Scenedesmus abundans	96 hours
	Acute EC50 9230 ug/L Fresh water	Daphnia - Daphnia magna - Neonate - <=24 hours	48 hours
	Acute LC50 21000 ug/L Marine water	Crustaceans - Artemia salina - Nauplii	48 hours
	Acute LC50 5.28 ul/L Fresh water	Fish - Oncorhynchus gorbuscha - Fry	96 hours
Chronic NOEC 1.5 to 5.4 ul/L Marine water	Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling) - 18.1 cm - 3.39 g	4 weeks	
1H Lineshape (² H ₆)Acetone	Acute EC50 5600000 to 10000000 ug/L Fresh water	Algae - Selenastrum sp.	72 hours
	Acute EC50 20.565 mg/L Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 6000000 ug/L Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 10000 ug/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 >100000 ug/L Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours
Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate - 6 to 24 hours	21 days	
Trichloromethane	Acute EC50 13.3 mg/L Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase - 7 days	72 hours
	Acute LC50 81.5 to 106 mg/L Marine water	Crustaceans - Penaeus duorarum - 35 to 50 mm	48 hours
	Acute LC50 29000 to 47000 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Acute LC50 13.3 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic NOEC 6300 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	21 days
13C S/N ASTM doped (² H ₆)Benzene	Acute EC50 29000 ug/L Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 >1360000 ug/L Fresh water	Algae - Scenedesmus abundans	96 hours
	Acute EC50 9230 ug/L Fresh water	Daphnia - Daphnia magna - Neonate - <=24 hours	48 hours
	Acute LC50 21000 ug/L Marine water	Crustaceans - Artemia salina - Nauplii	48 hours
	Acute LC50 5.28 ul/L Fresh water	Fish - Oncorhynchus gorbuscha - Fry	96 hours
Chronic NOEC 1.5 to 5.4 ul/L Marine water	Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling) - 18.1 cm - 3.39 g	4 weeks	

SECTION 12: Ecological information

1,4-Dioxane	Acute LC50 6700000 ug/L Marine water	Fish - Menidia beryllina - 40 to 100 mm	96 hours
ID 1 (² H)Chloroform	Acute EC50 13.3 mg/L Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase - 7 days	72 hours
	Acute LC50 81.5 mg/L Marine water	Crustaceans - Penaeus duorarum - 35 to 50 mm	48 hours
	Acute LC50 29000 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	48 hours
	Acute LC50 13300 ug/L Fresh water	Fish - Lepomis macrochirus - 17.1 cm - 126.4 g	96 hours
	Chronic NOEC 6300 ug/L Fresh water	Daphnia - Daphnia magna - <=24 hours	21 days
ID 2 di[(² H ₃)Methyl] sulphoxide	Acute LC50 25000 ppm Fresh water	Daphnia - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 34000000 ug/L Fresh water	Fish - Pimephales promelas - 31 days - 15.8 mm - 0.062 g	96 hours
	Chronic NOEC <0.1 g/L Fresh water	Fish - Danio rerio - Embryo - 4 to 6 hours	30 days
Benzamide (¹⁵ N)	Acute LC50 661000 ug/L Fresh water	Fish - Pimephales promelas - 35 days	96 hours

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Autotest, no salt Methanol (¹³ C)	-0.82 to 0.66	-	low
1H S/N (² H)Chloroform	1.97	-	low
19F S/N (² H ₆)Benzene	2.13	-	low
1H Lineshape (² H ₆)Acetone	-0.24	-	low
Trichloromethane	1.97	-	low
13C S/N ASTM doped (² H ₆)Benzene	2.13	-	low
1,4-Dioxane	-0.42	-	low
ID 1 (² H)Chloroform	1.97	-	low
Iodomethane (¹³ C)	1.51 to 1.69	-	low
Trimethyl phosphite	-0.73	-	low
ID 2 di[(² H ₃)Methyl] sulphoxide	-1.35	-	low

12.4 Mobility in soil

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

Mobility : Not available.

SECTION 12: Ecological information**12.5 Results of PBT and vPvB assessment**

PBT	: Not applicable.
vPvB	: Not applicable.

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

SECTION 13: Disposal considerations**13.1 Waste treatment methods**Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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.

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

Packaging

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

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

SECTION 14: Transport information

This Safety Data Sheet (EU_English) is written based on the encapsulated substance or mixture in this article. Since the hazardous ingredient is encapsulated, the risk of exposure by inhalation, ingestion, skin contact and eyes contact is minimum.

Regulatory information

ADR/RID / IMDG / IATA : Not regulated.

Additional information : **Remarks**
De minimis quantities

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : 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 authorisationSubstances 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 : For use in industrial installations only.

Other EU regulations

Europe inventory : Not determined.

Date of issue/Date of revision : 21/08/2014

SECTION 15: Regulatory information

Black List Chemicals : Not listed

Priority List Chemicals : Listed

Integrated pollution prevention and control list (IPPC) - Air : Listed

Integrated pollution prevention and control list (IPPC) - Water : Not listed

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
Autotest, no salt Methanol (¹³ C)	-	-	Repr. 1B, H360D	Repr. 1B, H360F
1H S/N (² H)Chloroform	Carc. 2, H351	-	-	-
19F S/N (² H ₆)Benzene	Carc. 1A, H350	Muta. 1B, H340	-	-
1H Lineshape Trichloromethane	Carc. 2, H351	-	-	-
13C S/N ASTM doped (² H ₆)Benzene 1,4-Dioxane	Carc. 1A, H350 Carc. 2, H351	Muta. 1B, H340 -	- -	- -
ID 1 (² H)Chloroform Iodomethane (¹³ C)	Carc. 2, H351 Carc. 2, H351	- -	- -	- -

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]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
1H S/N Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 and H336 STOT RE 2, H373	Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method
19F S/N Flam. Liq. 2, H225 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 1B, H340 Carc. 1A, H350	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method

Date of issue/Date of revision : 21/08/2014

SECTION 16: Other information

STOT SE 3, H335 and H336 STOT RE 1, H372o STOT RE 1, H372i	Calculation method Calculation method Calculation method
1H Lineshape Flam. Liq. 2, H225 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336	On basis of test data Calculation method Calculation method Calculation method
13C S/N ASTM doped Flam. Liq. 2, H225 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 1B, H340 Carc. 1A, H350 STOT SE 3, H335 and H336 STOT RE 1, H372o STOT RE 1, H372i	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method
ID 1 Acute Tox. 3, H301 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 and H336 STOT RE 2, H373	Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method
ID 2 STOT RE 2, H373o	Calculation method

Full text of abbreviated H statements : Autotest, no salt

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H360FD	May damage fertility. May damage the unborn child.
H370	Causes damage to organs.
1H S/N	
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335 and H336	May cause respiratory irritation. May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
19F S/N	
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335 and H336	May cause respiratory irritation. May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H372i	Causes damage to organs through prolonged or repeated exposure if inhaled.
H372o	Causes damage to organs through prolonged or repeated exposure if swallowed.

SECTION 16: Other information

1H Lineshape

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335 and H336i	May cause respiratory irritation. May cause drowsiness or dizziness.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

13C S/N ASTM doped

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H335 and H336	May cause respiratory irritation. May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H372i	Causes damage to organs through prolonged or repeated exposure if inhaled.
H372o	Causes damage to organs through prolonged or repeated exposure if swallowed.

ID 1

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H335 and H336	May cause respiratory irritation. May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

ID 2

H302	Harmful if swallowed.
H373o	May cause damage to organs through prolonged or repeated exposure if swallowed.

Full text of classifications [CLP/GHS]

: Autotest, no salt

Acute Tox. 3, H301	ACUTE TOXICITY: ORAL - Category 3
Acute Tox. 3, H311	ACUTE TOXICITY: SKIN - Category 3
Acute Tox. 3, H331	ACUTE TOXICITY: INHALATION - Category 3
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
Repr. 1B, H360FD	TOXIC TO REPRODUCTION [Fertility and Unborn child] - Category 1B
STOT SE 1, H370	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [central nervous system (CNS)] - Category 1
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3

1H S/N

Acute Tox. 3, H301	ACUTE TOXICITY: ORAL - Category 3
Acute Tox. 4, H302	ACUTE TOXICITY: ORAL - Category 4

SECTION 16: Other information

Carc. 2, H351	CARCINOGENICITY - Category 2
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) [kidneys and liver] - Category 2
STOT SE 3, H335 and H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3

19F S/N

Acute Tox. 4, H302	ACUTE TOXICITY: ORAL - Category 4
Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
Carc. 1A, H350	CARCINOGENICITY - Category 1A
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
Muta. 1B, H340	GERM CELL MUTAGENICITY - Category 1B
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT RE 1, H372i	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): INHALATION [blood system] - Category 1
STOT RE 1, H372o	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): ORAL [blood system] - Category 1
STOT SE 3, H335 and H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3

1H Lineshape

Acute Tox. 3, H301	ACUTE TOXICITY: ORAL - Category 3
Carc. 2, H351	CARCINOGENICITY - Category 2
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) [kidneys and liver] - Category 2
STOT SE 3, H335 and H336i	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): INHALATION [Respiratory tract irritation and Narcotic effects] - Category 3
STOT SE 3, H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Narcotic effects] - Category 3

13C S/N ASTM doped

Acute Tox. 4, H302	ACUTE TOXICITY: ORAL - Category 4
Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
Carc. 1A, H350	CARCINOGENICITY - Category 1A
Carc. 2, H351	CARCINOGENICITY - Category 2
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
Muta. 1B, H340	GERM CELL MUTAGENICITY - Category 1B
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT RE 1, H372i	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): INHALATION [blood system] - Category 1
STOT RE 1, H372o	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): ORAL [blood system, kidneys and liver] - Category 1
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3
STOT SE 3, H335 and H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3

ID 1

Acute Tox. 2, H330	ACUTE TOXICITY: INHALATION - Category 2
Acute Tox. 3, H301	ACUTE TOXICITY: ORAL - Category 3
Acute Tox. 3, H311	ACUTE TOXICITY: SKIN - Category 3
Acute Tox. 4, H302	ACUTE TOXICITY: ORAL - Category 4
Acute Tox. 4, H312	ACUTE TOXICITY: SKIN - Category 4

SECTION 16: Other information

<p>Carc. 2, H351 Eye Irrit. 2, H319 Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT RE 2, H373</p>	<p>CARCINOGENICITY - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) [kidneys and liver] - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3</p>
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ID 2

Acute Tox. 4, H302
 STOT RE 2, H373o

ACUTE TOXICITY: ORAL - Category 4
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): ORAL [kidneys and liver] - Category 2

Full text of abbreviated R phrases

: 4Hz 1% H2O/D2O
 Autotest, no salt
 1H S/N

Not applicable.
 R11- Highly flammable.
 R40- Limited evidence of a carcinogenic effect.
 R22- Harmful if swallowed.
 R48/20/22- Harmful: danger of serious damage to health in case of prolonged exposure through inhalation and if swallowed.

19F S/N

R38- Irritating to skin.
 R11- Highly flammable.
 R45- May cause cancer.
 R46- May cause heritable genetic damage.
 R48/23/24/25- Also toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
 R65- Also harmful: may cause lung damage if swallowed.
 R36/38- Irritating to eyes and skin.

1H Lineshape

R11- Highly flammable.
 R40- Limited evidence of a carcinogenic effect.
 R22- Harmful if swallowed.
 R48/20/22- Harmful: danger of serious damage to health in case of prolonged exposure through inhalation and if swallowed.
 R36- Irritating to eyes.
 R38- Irritating to skin.
 R66- Repeated exposure may cause skin dryness or cracking.

13C S/N ASTM doped

R67- Vapours may cause drowsiness and dizziness.
 R11- Highly flammable.
 R10- Flammable.
 R19- May form explosive peroxides.
 R45- May cause cancer.
 R40- Limited evidence of a carcinogenic effect.
 R46- May cause heritable genetic damage.
 R48/23/24/25- Also toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
 R65- Also harmful: may cause lung damage if swallowed.
 R36/37- Irritating to eyes and respiratory system.
 R36/38- Irritating to eyes and skin.
 R36/37/38- Irritating to eyes, respiratory system and skin.
 R66- Repeated exposure may cause skin dryness or cracking.

ID 1

R10- Flammable.
 R40- Limited evidence of a carcinogenic effect.
 R23/25- Toxic by inhalation and if swallowed.
 R21- Harmful in contact with skin.
 R22- Harmful if swallowed.
 R21/22- Harmful in contact with skin and if swallowed.
 R48/20/22- Harmful: danger of serious damage to health in

SECTION 16: Other information

		case of prolonged exposure through inhalation and if swallowed. R38- Irritating to skin. R37/38- Irritating to respiratory system and skin. R36/37/38- Irritating to eyes, respiratory system and skin. R22- Harmful if swallowed.
Full text of classifications [DSD/DPD]	ID 2	Not applicable.
	4Hz 1% H2O/D2O Autotest, no salt 1H S/N	F - Highly flammable Carc. Cat. 3 - Carcinogen category 3 Xn - Harmful Xi - Irritant
	19F S/N	F - Highly flammable Carc. Cat. 1 - Carcinogen category 1 Muta. Cat. 2 - Mutagen category 2 T - Toxic Xn - Harmful Xi - Irritant
	1H Lineshape	F - Highly flammable Carc. Cat. 3 - Carcinogen category 3 Xn - Harmful Xi - Irritant
	13C S/N ASTM doped	F - Highly flammable Carc. Cat. 1 - Carcinogen category 1 Carc. Cat. 3 - Carcinogen category 3 Muta. Cat. 2 - Mutagen category 2 T - Toxic Xn - Harmful Xi - Irritant
	ID 1	Carc. Cat. 3 - Carcinogen category 3 T - Toxic Xn - Harmful Xi - Irritant
	ID 2	Xn - Harmful
Date of issue/ Date of revision	: 21/08/2014	
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Version	: 2	

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