Conforms to US OSHA Hazard Communication 29CFR1910.1200

SAFETY DATA SHEET

NMR Sample Kit - 3mm General, Part Number 190350512

Section 1. Identification

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

1.1 Product identifier

Product name : NMR Sample Kit - 3mm General, Part Number 190350512

Part No. (Chemical Kit) : 190350512

Part No. :

Autotest, no salt	190350606
1H Lineshape	190350689
ID 1	190350696
13C S/N ASTM	190350669
1H S/N	190350670
Hi Temp Cal	190350679
Lo Temp Cal	190350680
App Test - Indanone	190350603

Validation date : 02/25/2014.

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

Material uses : Analytical chemistry.
8 x 250 µl

Autotest, no salt	250 µl
1H Lineshape	250 µl
ID 1	250 µl
13C S/N ASTM	250 µl
1H S/N	250 µl
Hi Temp Cal	250 µl
Lo Temp Cal	250 µl
App Test - Indanone	250 µl

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
Logistics Center - Americas
500 Ships Landing Way
New Castle, Delaware 19720
800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

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

OSHA/HCS status	:	Autotest, no salt	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
		1H Lineshape	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
		ID 1	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
		13C S/N ASTM	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
		1H S/N	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
		Hi Temp Cal	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
		Lo Temp Cal	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
		App Test - Indanone	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

Not classified.

Ingredients of unknown toxicity	:	Autotest, no salt	Not applicable.
		1H Lineshape	Not applicable.
		ID 1	Not applicable.
		13C S/N ASTM	Not applicable.
		1H S/N	Not applicable.
		Hi Temp Cal	Not applicable.
		Lo Temp Cal	Not applicable.
		App Test - Indanone	Percentage of the mixture consisting of ingredient (s) of unknown toxicity: 2.1%

2.2 GHS label elements

Hazard pictograms :

Signal word	:	Autotest, no salt	Danger
		1H Lineshape	Danger
		ID 1	Danger
		13C S/N ASTM	Danger
		1H S/N	Warning
		Hi Temp Cal	Danger
		Lo Temp Cal	Danger
		App Test - Indanone	Warning

Hazard statements :

Precautionary statements

Prevention :

Response :

Storage :

Section 2. Hazards identification

Disposal :

Supplemental label elements :

Autotest, no salt	None known.
1H Lineshape	Avoid contact with skin and clothing. Wash thoroughly after handling.
ID 1	None known.
13C S/N ASTM	Avoid contact with skin and clothing. Wash thoroughly after handling.
1H S/N	None known.
Hi Temp Cal	None known.
Lo Temp Cal	Avoid contact with skin and clothing. Wash thoroughly after handling.
App Test - Indanone	None known.

2.3 Other hazards

Hazards not otherwise classified :

Autotest, no salt	None known.
1H Lineshape	Defatting to the skin. Prolonged or repeated contact may dry skin and cause irritation.
ID 1	None known.
13C S/N ASTM	Defatting to the skin. Prolonged or repeated contact may dry skin and cause irritation.
1H S/N	None known.
Hi Temp Cal	None known.
Lo Temp Cal	Defatting to the skin. Prolonged or repeated contact may dry skin and cause irritation.
App Test - Indanone	None known.

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 :

Autotest, no salt	Mixture
1H Lineshape	Mixture
ID 1	Mixture
13C S/N ASTM	Mixture
1H S/N	Mixture
Hi Temp Cal	Substance
Lo Temp Cal	Substance
App Test - Indanone	Mixture

Ingredient name	%	CAS number
Autotest, no salt		
Methanol (^{13}C)	< 0.1	14742-26-8
1H Lineshape		
($^{2}H_6$)Acetone	60 - 100	666-52-4
Trichloromethane	0.1 - 1	67-66-3
ID 1		
(^{2}H)Chloroform	60 - 100	865-49-6
Iodomethane (^{13}C)	0.1 - 1	4227-95-6
Trimethyl phosphite	0.1 - 1	121-45-9
13C S/N ASTM		
($^{2}H_6$)Benzene	30 - 60	1076-43-3
1,4-Dioxane	30 - 60	123-91-1

Section 3. Composition/information on ingredients

1H S/N		
(^{2}H)Chloroform	60 - 100	865-49-6
Ethylbenzene	< 0.1	100-41-4
Hi Temp Cal		
Ethanediol	60 - 100	107-21-1
Lo Temp Cal		
Methanol	60 - 100	67-56-1
App Test - Indanone		
(^{2}H)Chloroform	60 - 100	865-49-6

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

There are no 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.

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact :

Autotest, no salt	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 if irritation occurs.
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.
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.
13C S/N ASTM	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 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.
Hi Temp Cal	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. If necessary, call a poison center or physician.
Lo Temp Cal	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. If necessary, call a poison center or physician.
App Test - Indanone	Immediately flush eyes with plenty of water,

Section 4. First aid measures

		occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: Autotest, no salt	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. 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.
	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.
	13C S/N ASTM	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

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	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 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.
Hi Temp Cal	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. 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.
Lo Temp Cal	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.
App Test - Indanone	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

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		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.
Skin contact	: Autotest, no salt	Flush contaminated skin with plenty of water. 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 recognized 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.
	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.
	13C S/N ASTM	Wash skin thoroughly with soap and water or use recognized 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 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.
	Hi Temp Cal	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Lo Temp Cal	Wash skin thoroughly with soap and water or use recognized 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. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	App Test - Indanone	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.

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Ingestion	:	Autotest, no salt	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. 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.
		ID 1	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.
		13C S/N ASTM	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.

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	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 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.
Hi Temp Cal	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.
Lo Temp Cal	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.
App Test - Indanone	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

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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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	Causes serious eye irritation.
		ID 1	Causes serious eye irritation.
		13C S/N ASTM	Causes serious eye irritation.
		1H S/N	Causes serious eye irritation.
		Hi Temp Cal	Causes eye irritation.
		Lo Temp Cal	Causes serious eye irritation.
		App Test - Indanone	Causes serious eye irritation.
Inhalation	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
		ID 1	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
		13C S/N ASTM	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.
		1H S/N	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
		Hi Temp Cal	No known significant effects or critical hazards.
		Lo Temp Cal	Toxic if inhaled. May cause respiratory irritation.
		App Test - Indanone	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	Defatting to the skin. May cause skin dryness and irritation.
		ID 1	Causes skin irritation.
		13C S/N ASTM	Causes skin irritation. Defatting to the skin.
		1H S/N	Causes skin irritation.
		Hi Temp Cal	No known significant effects or critical hazards.
		Lo Temp Cal	Toxic in contact with skin. Causes skin irritation. Defatting to the skin.
		App Test - Indanone	Causes skin irritation.

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Ingestion	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	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.
		13C S/N ASTM	Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.
		1H S/N	Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.
		Hi Temp Cal	Harmful if swallowed. May be irritating to mouth, throat and stomach.
		Lo Temp Cal	Toxic if swallowed. Irritating to mouth, throat and stomach.
		App Test - Indanone	Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact	:	Autotest, no salt	No specific data.
		1H Lineshape	Adverse symptoms may include the following: pain or irritation watering redness
		ID 1	Adverse symptoms may include the following: pain or irritation watering redness
		13C S/N ASTM	Adverse symptoms may include the following: pain or irritation watering redness
		1H S/N	Adverse symptoms may include the following: pain or irritation watering redness
		Hi Temp Cal	Adverse symptoms may include the following: irritation watering redness
		Lo Temp Cal	Adverse symptoms may include the following: pain or irritation watering redness
		App Test - Indanone	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	:	Autotest, no salt	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		1H Lineshape	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo

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			unconsciousness
		ID 1	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
		13C S/N ASTM	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
		1H S/N	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
		Hi Temp Cal	No specific data.
		Lo Temp Cal	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
		App Test - Indanone	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	:	Autotest, no salt	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		1H Lineshape	Adverse symptoms may include the following: irritation dryness cracking
		ID 1	Adverse symptoms may include the following: irritation redness
		13C S/N ASTM	Adverse symptoms may include the following: irritation redness dryness cracking
		1H S/N	Adverse symptoms may include the following: irritation redness

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		Hi Temp Cal	No specific data.
		Lo Temp Cal	Adverse symptoms may include the following: irritation redness dryness cracking reduced fetal weight increase in fetal deaths skeletal malformations
		App Test - Indanone	Adverse symptoms may include the following: irritation redness
Ingestion	:	Autotest, no salt	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		1H Lineshape	No specific data.
		ID 1	No specific data.
		13C S/N ASTM	No specific data.
		1H S/N	No specific data.
		Hi Temp Cal	No specific data.
		Lo Temp Cal	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		App Test - Indanone	No specific data.

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

Notes to physician	:	Autotest, no salt	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.
		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.
		13C S/N ASTM	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.
		Hi Temp Cal	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Lo Temp Cal	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		App Test - Indanone	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.

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Specific treatments :

Autotest, no salt	No specific treatment.
1H Lineshape	No specific treatment.
ID 1	No specific treatment.
13C S/N ASTM	No specific treatment.
1H S/N	No specific treatment.
Hi Temp Cal	No specific treatment.
Lo Temp Cal	No specific treatment.
App Test - Indanone	No specific treatment.

Protection of first-aiders :

Autotest, no salt	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.
1H Lineshape	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.
ID 1	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.
13C S/N ASTM	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.
1H S/N	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.
Hi Temp Cal	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.
Lo Temp Cal	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.
App Test - Indanone	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

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providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Autotest, no salt	Use an extinguishing agent suitable for the surrounding fire.
		1H Lineshape	Use dry chemical, CO_2, water spray (fog) or foam.
		ID 1	Use an extinguishing agent suitable for the surrounding fire.
		13C S/N ASTM	Use dry chemical, CO_2, water spray (fog) or foam.
		1H S/N	Use an extinguishing agent suitable for the surrounding fire.
		Hi Temp Cal	Use an extinguishing agent suitable for the surrounding fire.
		Lo Temp Cal	Use dry chemical, CO_2, water spray (fog) or foam.
		App Test - Indanone	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	Autotest, no salt	None known.
		1H Lineshape	Do not use water jet.
		ID 1	None known.
		13C S/N ASTM	Do not use water jet.
		1H S/N	None known.
		Hi Temp Cal	None known.
		Lo Temp Cal	Do not use water jet.
		App Test - Indanone	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	:	Autotest, no salt	In a fire or if heated, a pressure increase will occur and the container may burst.
		1H Lineshape	Highly flammable liquid and vapor. 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.
		ID 1	In a fire or if heated, a pressure increase will occur and the container may burst.
		13C S/N ASTM	Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
		1H S/N	In a fire or if heated, a pressure increase will occur and the container may burst.
		Hi Temp Cal	In a fire or if heated, a pressure increase will occur and the container may burst.
		Lo Temp Cal	Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may

Section 5. Fire-fighting measures

accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

App Test - Indanone

In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
carbonyl halides

5.3 Advice for firefighters

Special protective actions for fire-fighters :

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 Lineshape

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

ID 1

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

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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.

Hi Temp Cal

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.

Lo Temp Cal

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

App Test - Indanone

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.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters	:	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.
		1H Lineshape	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		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.
		13C S/N ASTM	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		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.
		Hi Temp Cal	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		Lo Temp Cal	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		App Test - Indanone	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions	:	Autotest, no salt	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
		1H Lineshape	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
		ID 1	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has

Section 6. Accidental release measures

	caused environmental pollution (sewers, waterways, soil or air).
13C S/N ASTM	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
1H S/N	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Hi Temp Cal	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Lo Temp Cal	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
App Test - Indanone	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

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 Lineshape	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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.
13C S/N ASTM	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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.
Hi Temp Cal	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.
Lo Temp Cal	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an

Section 6. Accidental release measures

	inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
App Test - Indanone	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.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	:	Autotest, no salt	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.
		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 breathe vapor 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.
		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 vapor 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.
		13C S/N ASTM	Put on appropriate personal protective equipment

Section 7. Handling and storage

	(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 vapor 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 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 vapor 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.
Hi Temp Cal	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.
Lo Temp Cal	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor 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

Section 7. Handling and storage

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.

App Test - Indanone

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 vapor 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.

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

7.2 Conditions for safe storage, including any incompatibilities : 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. 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 unlabeled 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

ID 1

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 unlabeled containers.

Section 7. Handling and storage

	Use appropriate containment to avoid environmental contamination.
13C S/N ASTM	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
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 unlabeled containers. Use appropriate containment to avoid environmental contamination.
Hi Temp Cal	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 unlabeled containers. Use appropriate containment to avoid environmental contamination.
Lo Temp Cal	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
App Test - Indanone	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 unlabeled containers.

Section 7. Handling and storage

Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations :

Autotest, no salt	Industrial applications, Professional applications.
1H Lineshape	Industrial applications, Professional applications.
ID 1	Industrial applications, Professional applications.
13C S/N ASTM	Industrial applications, Professional applications.
1H S/N	Industrial applications, Professional applications.
Hi Temp Cal	Industrial applications, Professional applications.
Lo Temp Cal	Industrial applications, Professional applications.
App Test - Indanone	Industrial applications, Professional applications.

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

Ingredient name	Exposure limits
Autotest, no salt Methanol (^{13}C)	**ACGIH TLV (United States, 3/2012).** **Absorbed through skin.** TWA: 200 ppm 8 hours. TWA: 262 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. **NIOSH REL (United States, 6/2009).** **Absorbed through skin.** TWA: 200 ppm 10 hours. TWA: 260 mg/m³ 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2010).** TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours.
1H Lineshape ($^{2}H_{6}$)Acetone	**ACGIH TLV (United States, 3/2012).** TWA: 500 ppm 8 hours. TWA: 1188 mg/m³ 8 hours. STEL: 750 ppm 15 minutes. STEL: 1782 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 750 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 2400 mg/m³ 15 minutes.

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	NIOSH REL (United States, 6/2009). TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 6/2010).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.
Trichloromethane	**ACGIH TLV (United States, 3/2012).** TWA: 49 mg/m³ 8 hours. TWA: 10 ppm 8 hours. **NIOSH REL (United States, 1/2013).** STEL: 9.78 mg/m³ 60 minutes. STEL: 2 ppm 60 minutes. **OSHA PEL (United States, 6/2010).** CEIL: 240 mg/m³ CEIL: 50 ppm **OSHA PEL 1989 (United States, 3/1989).** TWA: 9.78 mg/m³ 8 hours. TWA: 2 ppm 8 hours.
ID 1	
(^{2}H)Chloroform	**ACGIH TLV (United States, 3/2012).** TWA: 10 ppm 8 hours. TWA: 49 mg/m³ 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 2 ppm 8 hours. TWA: 9.78 mg/m³ 8 hours. **NIOSH REL (United States, 6/2009).** STEL: 2 ppm 60 minutes. STEL: 9.78 mg/m³ 60 minutes. **OSHA PEL (United States, 6/2010).** CEIL: 50 ppm CEIL: 240 mg/m³
Iodomethane (^{13} C)	**ACGIH TLV (United States, 3/2012).** **Absorbed through skin.** TWA: 2 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 2 ppm 8 hours. TWA: 10 mg/m³ 8 hours. **NIOSH REL (United States, 6/2009).** **Absorbed through skin.** TWA: 2 ppm 10 hours. TWA: 10 mg/m³ 10 hours. **OSHA PEL (United States, 6/2010).** **Absorbed through skin.** TWA: 5 ppm 8 hours. TWA: 28 mg/m³ 8 hours.
Trimethyl phosphite	**ACGIH TLV (United States, 3/2012).** TWA: 2 ppm 8 hours. TWA: 10 mg/m³ 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 2 ppm 8 hours. TWA: 10 mg/m³ 8 hours. **NIOSH REL (United States, 1/2013).** TWA: 2 ppm 10 hours. TWA: 10 mg/m³ 10 hours.

Section 8. Exposure controls/personal protection

13C S/N ASTM	
($^2H_6$)Benzene	**ACGIH TLV (United States, 3/2012).** **Absorbed through skin.** TWA: 0.5 ppm 8 hours. TWA: 1.6 mg/m³ 8 hours. STEL: 2.5 ppm 15 minutes. STEL: 8 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 1 ppm 8 hours. STEL: 5 ppm 15 minutes. **OSHA PEL Z2 (United States, 11/2006).** TWA: 10 ppm 8 hours. CEIL: 25 ppm AMP: 50 ppm 10 minutes. **NIOSH REL (United States, 6/2009).** TWA: 0.1 ppm 10 hours. STEL: 1 ppm 15 minutes. **OSHA PEL (United States, 6/2010).** TWA: 1 ppm 8 hours. STEL: 5 ppm 15 minutes.
1,4-Dioxane	**OSHA PEL 1989 (United States, 3/1989).** **Absorbed through skin.** TWA: 25 ppm 8 hours. TWA: 90 mg/m³ 8 hours. **NIOSH REL (United States, 1/2013).** CEIL: 1 ppm 30 minutes. CEIL: 3.6 mg/m³ 30 minutes. **ACGIH TLV (United States, 3/2012).** **Absorbed through skin.** TWA: 20 ppm 8 hours. **OSHA PEL (United States, 6/2010).** **Absorbed through skin.** TWA: 100 ppm 8 hours. TWA: 360 mg/m³ 8 hours.
1H S/N	
(^2H)Chloroform	**ACGIH TLV (United States, 3/2012).** TWA: 10 ppm 8 hours. TWA: 49 mg/m³ 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 2 ppm 8 hours. TWA: 9.78 mg/m³ 8 hours. **NIOSH REL (United States, 6/2009).** STEL: 2 ppm 60 minutes. STEL: 9.78 mg/m³ 60 minutes. **OSHA PEL (United States, 6/2010).** CEIL: 50 ppm CEIL: 240 mg/m³
Ethylbenzene	**ACGIH TLV (United States, 3/2012).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 1/2013).** STEL: 545 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m³ 10 hours. TWA: 100 ppm 10 hours. **OSHA PEL (United States, 6/2010).**

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	TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 545 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours.
Hi Temp Cal Ethanediol	**ACGIH TLV (United States, 3/2012).** C: 100 mg/m³ Form: Aerosol **OSHA PEL 1989 (United States, 3/1989).** CEIL: 125 mg/m³ CEIL: 50 ppm
Lo Temp Cal Methanol	**ACGIH TLV (United States, 3/2012).** C: 100 mg/m³ Form: Aerosol **OSHA PEL 1989 (United States, 3/1989).** CEIL: 125 mg/m³ CEIL: 50 ppm
App Test - Indanone (^{2}H)Chloroform	**ACGIH TLV (United States, 3/2012).** TWA: 10 ppm 8 hours. TWA: 49 mg/m³ 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 2 ppm 8 hours. TWA: 9.78 mg/m³ 8 hours. **NIOSH REL (United States, 6/2009).** STEL: 2 ppm 60 minutes. STEL: 9.78 mg/m³ 60 minutes. **OSHA PEL (United States, 6/2010).** CEIL: 50 ppm CEIL: 240 mg/m³

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.

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

Individual protection measures

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

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

Section 8. Exposure controls/personal protection

Skin protection

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

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

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

Respiratory protection : 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.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state :	Autotest, no salt	Liquid.
	1H Lineshape	Liquid.
	ID 1	Liquid.
	13C S/N ASTM	Liquid.
	1H S/N	Liquid.
	Hi Temp Cal	Liquid. [Viscous liquid.]
	Lo Temp Cal	Liquid. [Clear.]
	App Test - Indanone	Liquid.
Color :	Autotest, no salt	Not available.
	1H Lineshape	Not available.
	ID 1	Not available.
	13C S/N ASTM	Colorless.
	1H S/N	Not available.
	Hi Temp Cal	Colorless.
	Lo Temp Cal	Colorless. Clear.
	App Test - Indanone	Colorless.
Odor :	Autotest, no salt	Not available.
	1H Lineshape	Not available.
	ID 1	Not available.
	13C S/N ASTM	Not available.
	1H S/N	Not available.
	Hi Temp Cal	Slight
	Lo Temp Cal	Characteristic.
	App Test - Indanone	Pleasant.-Sweet.
Odor threshold :	Autotest, no salt	Not available.
	1H Lineshape	Not available.
	ID 1	Not available.
	13C S/N ASTM	Not available.
	1H S/N	Not available.
	Hi Temp Cal	Not available.
	Lo Temp Cal	Not available.
	App Test - Indanone	Not available.

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pH	:	Autotest, no salt	Not available.
		1H Lineshape	Not available.
		ID 1	Not available.
		13C S/N ASTM	Not available.
		1H S/N	Not available.
		Hi Temp Cal	Not available.
		Lo Temp Cal	Not available.
		App Test - Indanone	Not available.
Melting point	:	Autotest, no salt	3.81°C (38.9°F)
		1H Lineshape	-95°C (-139°F)
		ID 1	-64°C (-83.2°F)
		13C S/N ASTM	6.8°C (44.2°F)
		1H S/N	-64°C (-83.2°F)
		Hi Temp Cal	-13°C (8.6°F)
		Lo Temp Cal	-97.8°C (-144°F)
		App Test - Indanone	-63°C (-81.4°F)
Boiling point	:	Autotest, no salt	101.1°C (214°F)
		1H Lineshape	55.5°C (131.9°F)
		ID 1	60.9°C (141.6°F)
		13C S/N ASTM	79.1°C (174.4°F)
		1H S/N	60.9°C (141.6°F)
		Hi Temp Cal	198°C (388.4°F)
		Lo Temp Cal	60.9°C (141.6°F)
		App Test - Indanone	60.5 to 61.5°C (140.9 to 142.7°F)
Flash point	:	Autotest, no salt	Not available.
		1H Lineshape	Closed cup: -17°C (1.4°F)
		ID 1	Not available.
		13C S/N ASTM	Closed cup: -18 to 23°C (-0.4 to 73.4°F)
		1H S/N	Not available.
		Hi Temp Cal	Closed cup: 111°C (231.8°F) Open cup: 115°C (239°F)
		Lo Temp Cal	Closed cup: 15°C (59°F) [Setaflash.]
		App Test - Indanone	Not available.
Evaporation rate	:	Autotest, no salt	Not available.
		1H Lineshape	Not available.
		ID 1	Not available.
		13C S/N ASTM	Not available.
		1H S/N	Not available.
		Hi Temp Cal	0.01 (butyl acetate = 1)
		Lo Temp Cal	2.1 (butyl acetate = 1)
		App Test - Indanone	Not available.
Flammability (solid, gas)	:	Autotest, no salt	Not available.
		1H Lineshape	Not available.
		ID 1	Not available.
		13C S/N ASTM	Not available.
		1H S/N	Not available.
		Hi Temp Cal	Not available.
		Lo Temp Cal	Not available.
		App Test - Indanone	Not available.
Lower and upper explosive (flammable) limits	:	Autotest, no salt	Not available.
		1H Lineshape	Not available.
		ID 1	Not available.
		13C S/N ASTM	Lower: 1.3% Upper: 8%
		1H S/N	Not available.
		Hi Temp Cal	Lower: 3.2% Upper: 15.3%
		Lo Temp Cal	Lower: 6%

Section 9. Physical and chemical properties

			Upper: 44%
		App Test - Indanone	Not available.
Vapor pressure	:	Autotest, no salt	Not available.
		1H Lineshape	Not available.
		ID 1	Not available.
		13C S/N ASTM	22.1 kPa (166 mm Hg) [room temperature]
		1H S/N	Not available.
		Hi Temp Cal	0.007 kPa (0.0525 mm Hg) [room temperature]
		Lo Temp Cal	16.9 kPa (126.963291808 mm Hg) [room temperature]
		App Test - Indanone	21.3 kPa (160 mm Hg) [room temperature]
Vapor density	:	Autotest, no salt	Not available.
		1H Lineshape	Not available.
		ID 1	Not available.
		13C S/N ASTM	2.77 [Air = 1]
		1H S/N	Not available.
		Hi Temp Cal	2.1 [Air = 1]
		Lo Temp Cal	1.1 [Air = 1]
		App Test - Indanone	4.1 [Air = 1]
Relative density	:	Autotest, no salt	1.1 [(D2O)]
		1H Lineshape	0.872
		ID 1	1500
		13C S/N ASTM	0.95
		1H S/N	1.5
		Hi Temp Cal	1.1
		Lo Temp Cal	0.79
		App Test - Indanone	1.492
Solubility	:	Autotest, no salt	Easily soluble in the following materials: cold water and hot water.
		1H Lineshape	Easily soluble in the following materials: cold water, hot water and acetone.
		ID 1	Very slightly soluble in the following materials: cold water and hot water.
		13C S/N ASTM	Easily soluble in the following materials: cold water and hot water.
		1H S/N	Very slightly soluble in the following materials: cold water and hot water.
		Hi Temp Cal	Easily soluble in the following materials: cold water, hot water, methanol and acetone.
		Lo Temp Cal	Easily soluble in the following materials: cold water, hot water, methanol, n-octanol and acetone.
		App Test - Indanone	Very slightly soluble in the following materials: cold water and hot water.
Solubility in water	:	Not available.	
Partition coefficient: n-octanol/water	:	Autotest, no salt	Not available.
		1H Lineshape	Not available.
		ID 1	Not available.
		13C S/N ASTM	Not available.
		1H S/N	Not available.
		Hi Temp Cal	-1.93
		Lo Temp Cal	-0.77
		App Test - Indanone	Not available.

Section 9. Physical and chemical properties

Auto-ignition temperature	:	Autotest, no salt	Not available.
		1H Lineshape	Not available.
		ID 1	Not available.
		13C S/N ASTM	Not available.
		1H S/N	Not available.
		Hi Temp Cal	398°C (748.4°F)
		Lo Temp Cal	455°C (851°F)
		App Test - Indanone	Not available.
Decomposition temperature	:	Autotest, no salt	Not available.
		1H Lineshape	Not available.
		ID 1	Not available.
		13C S/N ASTM	Not available.
		1H S/N	Not available.
		Hi Temp Cal	500 to 600°C (932 to 1112°F)
		Lo Temp Cal	Not available.
		App Test - Indanone	Not available.
Viscosity	:	Autotest, no salt	Not available.
		1H Lineshape	Not available.
		ID 1	Not available.
		13C S/N ASTM	Not available.
		1H S/N	Not available.
		Hi Temp Cal	Dynamic (room temperature): 16.1 mPa·s (16.1 cP)
		Lo Temp Cal	Dynamic (room temperature): 0.544 to 0.59 mPa·s (0.544 to 0.59 cP)
		App Test - Indanone	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	:	Autotest, no salt	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.
		ID 1	No specific test data related to reactivity available for this product or its ingredients.
		13C S/N ASTM	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.
		Hi Temp Cal	No specific test data related to reactivity available for this product or its ingredients.
		Lo Temp Cal	No specific test data related to reactivity available for this product or its ingredients.
		App Test - Indanone	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	Autotest, no salt	The product is stable.
		1H Lineshape	The product is stable.
		ID 1	The product is stable.
		13C S/N ASTM	The product is stable.
		1H S/N	The product is stable.
		Hi Temp Cal	The product is stable.
		Lo Temp Cal	The product is stable.
		App Test - Indanone	The product is stable.

Section 10. Stability and reactivity

10.3 Possibility of hazardous reactions	:	Autotest, no salt	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.
		ID 1	Under normal conditions of storage and use, hazardous reactions will not occur.
		13C S/N ASTM	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.
		Hi Temp Cal	Under normal conditions of storage and use, hazardous reactions will not occur.
		Lo Temp Cal	Under normal conditions of storage and use, hazardous reactions will not occur.
		App Test - Indanone	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	Autotest, no salt	No specific data.
		1H Lineshape	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
		ID 1	No specific data.
		13C S/N ASTM	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
		1H S/N	No specific data.
		Hi Temp Cal	No specific data.
		Lo Temp Cal	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
		App Test - Indanone	No specific data.
10.5 Incompatible materials	:	Autotest, no salt	No specific data.
		1H Lineshape	Reactive or incompatible with the following materials: oxidizing materials
		ID 1	No specific data.
		13C S/N ASTM	Reactive or incompatible with the following materials: oxidizing materials
		1H S/N	No specific data.
		Hi Temp Cal	No specific data.
		Lo Temp Cal	Reactive or incompatible with the following materials: oxidizing materials
		App Test - Indanone	No specific data.

Section 10. Stability and reactivity

10.6 Hazardous decomposition products	:	Autotest, no salt	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.
		ID 1	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		13C S/N ASTM	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.
		Hi Temp Cal	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		Lo Temp Cal	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		App Test - Indanone	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
Autotest, no salt				
Methanol (^{13}C)	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
1H Lineshape				
($^{2}H_6$)Acetone	LD50 Oral	Rat	5800 mg/kg	-
Trichloromethane	LC50 Inhalation Vapor	Rat	47702 mg/m³	4 hours
	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	300 mg/kg	-
ID 1				
(^{2}H)Chloroform	LC50 Inhalation Vapor	Rat	47702 mg/m³	4 hours
	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	300 mg/kg	-
Iodomethane (^{13} C)	LC50 Inhalation Vapor	Rat	1300 mg/m³	4 hours
	LD50 Oral	Rat	76 mg/kg	-
Trimethyl phosphite	LC50 Inhalation Vapor	Rat	182000 mg/m³	1 hours
	LD50 Dermal	Rabbit	933.8 mg/kg	-
	LD50 Oral	Rat	1350 mg/kg	-
13C S/N ASTM				
($^{2}H_6$)Benzene	LD50 Oral	Rat	930 mg/kg	-
1,4-Dioxane	LD50 Oral	Rat	4200 mg/kg	-
1H S/N				
(^{2}H)Chloroform	LC50 Inhalation Vapor	Rat	47702 mg/m³	4 hours

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	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	300 mg/kg	-
Ethylbenzene	LC50 Inhalation Gas.	Rat	4000 ppm	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Hi Temp Cal				
Ethanediol	LD50 Oral	Rat	4700 mg/kg	-
Lo Temp Cal				
Methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
App Test - Indanone				
(^{2}H)Chloroform	LC50 Inhalation Vapor	Rat	47702 mg/m^{3}	4 hours
	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	300 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Autotest, no salt					
Methanol (^{13}C)	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
1H Lineshape					
($^{2}H_{6}$)Acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	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	-
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	-	100 milligrams	-
	Skin - Mild irritant	Rat	-	30 minutes 1 Grams	-
	Skin - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Human	-	10 minutes 1 Grams	-

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Trimethyl phosphite	Eyes - Mild irritant	Rabbit	-	0.1 Mililiters	-
	Skin - Severe irritant	Rabbit	-	500 milligrams	-
13C S/N ASTM					
($^2H_6$)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	-
1H S/N					
(^{2}H)Chloroform	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Ethylbenzene	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
Hi Temp Cal					
Ethanediol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	1 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	6 hours 1440 milligrams	-
	Skin - Mild irritant	Rabbit	-	555 milligrams	-
Lo Temp Cal					
Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
App Test - Indanone					
(^{2}H)Chloroform	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Section 11. Toxicological information

Classification

Product/ingredient name	OSHA	IARC	NTP
1H Lineshape			
Trichloromethane	-	2B	Reasonably anticipated to be a human carcinogen.
ID 1			
(^{2}H)Chloroform	-	2B	Reasonably anticipated to be a human carcinogen.
Iodomethane (^{13} C)	-	3	-
13C S/N ASTM			
($^{2}H_{6}$)Benzene	+	1	Known to be a human carcinogen.
1,4-Dioxane	-	2B	Reasonably anticipated to be a human carcinogen.
1H S/N			
(^{2}H)Chloroform	-	2B	Reasonably anticipated to be a human carcinogen.
Ethylbenzene	-	2B	-
App Test - Indanone			
(^{2}H)Chloroform	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Autotest, no salt			
Methanol (^{13}C)	Category 1	Not determined	central nervous system (CNS)
	Category 3	Not applicable.	Respiratory tract irritation
1H Lineshape			
($^{2}H_{6}$)Acetone	Category 3	Not applicable.	Narcotic effects
Trichloromethane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
ID 1			
(^{2}H)Chloroform	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Iodomethane (^{13} C)	Category 3	Not applicable.	Respiratory tract irritation
Trimethyl phosphite	Category 3	Not applicable.	Respiratory tract irritation
13C S/N ASTM			
($^{2}H_{6}$)Benzene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
1,4-Dioxane	Category 3	Not applicable.	Respiratory tract irritation

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1H S/N			
(^{2}H)Chloroform	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Ethylbenzene	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Hi Temp Cal			
Ethanediol	Category 1	Not determined	kidneys
Lo Temp Cal			
Methanol	Category 1	Not determined	central nervous system (CNS)
	Category 3	Not applicable.	Respiratory tract irritation
App Test - Indanone			
(^{2}H)Chloroform	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
1H Lineshape			
Trichloromethane	Category 2	Not determined	heart, kidneys and liver
ID 1			
(^{2}H)Chloroform	Category 2	Not determined	kidneys and liver
13C S/N ASTM			
($^2H_6$)Benzene	Category 1	Oral	blood system
		Inhalation	blood system
1,4-Dioxane	Category 1	Oral	kidneys and liver
1H S/N			
(^{2}H)Chloroform	Category 2	Not determined	kidneys and liver
App Test - Indanone			
(^{2}H)Chloroform	Category 2	Not determined	kidneys and liver

Aspiration hazard

Name	Result
ID 1	
(^{2}H)Chloroform	ASPIRATION HAZARD - Category 1
13C S/N ASTM	
($^2H_6$)Benzene	ASPIRATION HAZARD - Category 1
1H S/N	
(^{2}H)Chloroform	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1
App Test - Indanone	
(^{2}H)Chloroform	ASPIRATION HAZARD - Category 1

Section 11. Toxicological information

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	Causes serious eye irritation.
		ID 1	Causes serious eye irritation.
		13C S/N ASTM	Causes serious eye irritation.
		1H S/N	Causes serious eye irritation.
		Hi Temp Cal	Causes eye irritation.
		Lo Temp Cal	Causes serious eye irritation.
		App Test - Indanone	Causes serious eye irritation.
Inhalation	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
		ID 1	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
		13C S/N ASTM	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation.
		1H S/N	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
		Hi Temp Cal	No known significant effects or critical hazards.
		Lo Temp Cal	Toxic if inhaled. May cause respiratory irritation.
		App Test - Indanone	Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	Defatting to the skin. May cause skin dryness and irritation.
		ID 1	Causes skin irritation.
		13C S/N ASTM	Causes skin irritation. Defatting to the skin.
		1H S/N	Causes skin irritation.
		Hi Temp Cal	No known significant effects or critical hazards.
		Lo Temp Cal	Toxic in contact with skin. Causes skin irritation. Defatting to the skin.
		App Test - Indanone	Causes skin irritation.
Ingestion	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	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.
		13C S/N ASTM	Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

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1H S/N	Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.
Hi Temp Cal	Harmful if swallowed. May be irritating to mouth, throat and stomach.
Lo Temp Cal	Toxic if swallowed. Irritating to mouth, throat and stomach.
App Test - Indanone	Harmful if swallowed. Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact :	Autotest, no salt	No specific data.
	1H Lineshape	Adverse symptoms may include the following: pain or irritation watering redness
	ID 1	Adverse symptoms may include the following: pain or irritation watering redness
	13C S/N ASTM	Adverse symptoms may include the following: pain or irritation watering redness
	1H S/N	Adverse symptoms may include the following: pain or irritation watering redness
	Hi Temp Cal	Adverse symptoms may include the following: irritation watering redness
	Lo Temp Cal	Adverse symptoms may include the following: pain or irritation watering redness
	App Test - Indanone	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation :	Autotest, no salt	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
	1H Lineshape	Adverse symptoms may include the following: 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

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			unconsciousness
		13C S/N ASTM	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
		1H S/N	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
		Hi Temp Cal	No specific data.
		Lo Temp Cal	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
		App Test - Indanone	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	:	Autotest, no salt	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		1H Lineshape	Adverse symptoms may include the following: irritation dryness cracking
		ID 1	Adverse symptoms may include the following: irritation redness
		13C S/N ASTM	Adverse symptoms may include the following: irritation redness dryness cracking
		1H S/N	Adverse symptoms may include the following: irritation redness
		Hi Temp Cal	No specific data.
		Lo Temp Cal	Adverse symptoms may include the following: irritation redness dryness cracking reduced fetal weight increase in fetal deaths

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			skeletal malformations
		App Test - Indanone	Adverse symptoms may include the following: irritation redness
Ingestion	:	Autotest, no salt	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		1H Lineshape	No specific data.
		ID 1	No specific data.
		13C S/N ASTM	No specific data.
		1H S/N	No specific data.
		Hi Temp Cal	No specific data.
		Lo Temp Cal	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
		App Test - Indanone	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

Not available.

General	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
		ID 1	May cause damage to organs through prolonged or repeated exposure.
		13C S/N ASTM	Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
		1H S/N	May cause damage to organs through prolonged or repeated exposure.
		Hi Temp Cal	No known significant effects or critical hazards.
		Lo Temp Cal	Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
		App Test - Indanone	May cause damage to organs through prolonged or repeated exposure.

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Carcinogenicity	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
		ID 1	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
		13C S/N ASTM	May cause cancer. Risk of cancer depends on duration and level of exposure.
		1H S/N	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
		Hi Temp Cal	No known significant effects or critical hazards.
		Lo Temp Cal	No known significant effects or critical hazards.
		App Test - Indanone	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	No known significant effects or critical hazards.
		ID 1	No known significant effects or critical hazards.
		13C S/N ASTM	May cause genetic defects.
		1H S/N	No known significant effects or critical hazards.
		Hi Temp Cal	No known significant effects or critical hazards.
		Lo Temp Cal	No known significant effects or critical hazards.
		App Test - Indanone	No known significant effects or critical hazards.
Teratogenicity	:	Autotest, no salt	May damage the unborn child.
		1H Lineshape	No known significant effects or critical hazards.
		ID 1	No known significant effects or critical hazards.
		13C S/N ASTM	No known significant effects or critical hazards.
		1H S/N	No known significant effects or critical hazards.
		Hi Temp Cal	No known significant effects or critical hazards.
		Lo Temp Cal	May damage the unborn child.
		App Test - Indanone	No known significant effects or critical hazards.
Developmental effects	:	Autotest, no salt	No known significant effects or critical hazards.
		1H Lineshape	No known significant effects or critical hazards.
		ID 1	No known significant effects or critical hazards.
		13C S/N ASTM	No known significant effects or critical hazards.
		1H S/N	No known significant effects or critical hazards.
		Hi Temp Cal	No known significant effects or critical hazards.
		Lo Temp Cal	No known significant effects or critical hazards.
		App Test - Indanone	No known significant effects or critical hazards.
Fertility effects	:	Autotest, no salt	May damage fertility.
		1H Lineshape	No known significant effects or critical hazards.
		ID 1	No known significant effects or critical hazards.
		13C S/N ASTM	No known significant effects or critical hazards.
		1H S/N	No known significant effects or critical hazards.
		Hi Temp Cal	No known significant effects or critical hazards.
		Lo Temp Cal	May damage fertility.
		App Test - Indanone	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Route	ATE value
1H Lineshape	
Oral	30000 mg/kg
ID 1	
Oral	294.2 mg/kg
Dermal	50505.5 mg/kg
Inhalation (vapors)	130 mg/l
13C S/N ASTM	
Oral	1356.8 mg/kg
1H S/N	
Oral	300.3 mg/kg
App Test - Indanone	
Oral	306.4 mg/kg

Other information :

Autotest, no salt	Not available.
1H Lineshape	Not available.
ID 1	Not available.
13C S/N ASTM	Not available.
1H S/N	Not available.
Hi Temp Cal	Not available.
Lo Temp Cal	Adverse symptoms may include the following: redness . Defatting to the skin. Adverse health effects could include the following: blurred or double vision, headache Repeated exposure may cause skin dryness or cracking. Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage.
App Test - Indanone	Not available.

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Autotest, no salt			
Methanol (^{13}C)	Acute EC50 16.912 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 100000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours
1H Lineshape			
($^{2}H_6$)Acetone	Acute EC50 20.565 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 10000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 100000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling,	96 hours

Section 12. Ecological information

		Weanling)	
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
Trichloromethane	Acute EC50 13.3 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Acute EC50 2.803 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute LC50 63800 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 13.3 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic EC10 3.61 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Chronic NOEC 6300 µg/l Fresh water	Daphnia - Daphnia magna	21 days
ID 1			
(^{2}H)Chloroform	Acute EC50 13.3 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Acute LC50 81.5 mg/l Marine water	Crustaceans - Penaeus duorarum	48 hours
	Acute LC50 29000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 13300 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic EC10 3.61 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Chronic NOEC 6300 µg/l Fresh water	Daphnia - Daphnia magna	21 days
13C S/N ASTM			
($^2H_6$)Benzene	Acute EC50 29000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 1360000 µg/l Fresh water	Algae - Scenedesmus abundans	96 hours
	Acute EC50 9230 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 21000 µg/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)	4 weeks
1,4-Dioxane	Acute LC50 6700000 µg/l Marine water	Fish - Menidia beryllina	96 hours
1H S/N			
(^{2}H)Chloroform	Acute EC50 13.3 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Acute LC50 81.5 mg/l Marine water	Crustaceans - Penaeus duorarum	48 hours
	Acute LC50 29000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 13300 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic EC10 3.61 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Chronic NOEC 6300 µg/l Fresh water	Daphnia - Daphnia magna	21 days
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2970 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours

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	Acute LC50 5200 µg/l Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
Hi Temp Cal			
Ethanediol	Acute LC50 100000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 10000000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 8050000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Lo Temp Cal			
Methanol	Acute EC50 16.912 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 10000000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 100 mg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours
App Test - Indanone			
(^{2}H)Chloroform	Acute EC50 13.3 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Acute LC50 81.5 mg/l Marine water	Crustaceans - Penaeus duorarum	48 hours
	Acute LC50 29000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 13300 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic EC10 3.61 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Chronic NOEC 6300 µg/l Fresh water	Daphnia - Daphnia magna	21 days

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Hi Temp Cal				
Ethanediol	-	56 % - Readily - 1 days	100 mg/l	Activated sludge

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
1H S/N			
Ethylbenzene	-	-	Readily
Hi Temp Cal			
Ethanediol	-	-	Readily

12.3 Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Autotest, no salt			
Methanol (^{13}C)	-0.77	<10	low
1H Lineshape			
($^{2}H_6$)Acetone	-0.23	-	low
Trichloromethane	1.97	690	high
ID 1			
(^{2}H)Chloroform	1.97	690	high
Iodomethane (^{13}C)	1.57	-	low
Trimethyl phosphite	-0.73	-	low
13C S/N ASTM			
($^{2}H_6$)Benzene	2.13	11	low
1,4-Dioxane	-0.42	0.3 to 0.7	low
1H S/N			
(^{2}H)Chloroform	1.97	690	high
Ethylbenzene	3.6	-	low
Hi Temp Cal			
Ethanediol	-1.93	-	low
Lo Temp Cal			
Methanol	-0.77	<10	low
App Test - Indanone			
(^{2}H)Chloroform	1.97	690	high

12.4 Mobility in soil

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

12.5 Other adverse effects

Autotest, no salt	No known significant effects or critical hazards.
1H Lineshape	No known significant effects or critical hazards.
ID 1	No known significant effects or critical hazards.
13C S/N ASTM	No known significant effects or critical hazards.
1H S/N	No known significant effects or critical hazards.
Hi Temp Cal	No known significant effects or critical hazards.
Lo Temp Cal	No known significant effects or critical hazards.
App Test - Indanone	No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

Section 13. Disposal considerations

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

This Material Safety Data Sheet 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

Additional information : **Remarks**
De minimis quantities

DOT / IMDG / IATA : Not regulated.

Section 15. Regulatory information

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

U.S. Federal regulations : **TSCA 8(a) PAIR**: Acetonitrile (^{15N})

Commerce control list precursor: Trimethyl phosphite

United States inventory (TSCA 8b): Not determined.

Clean Water Act (CWA) 307: Acetonitrile (^{15N}); (^{2}H)Chloroform; Ethylbenzene; Chromium(III) 4-oxopent-2-ene-2-olate; Trichloromethane

Clean Water Act (CWA) 311: (^{2}H)Chloroform; Ethylbenzene; Trichloromethane

Clean Air Act (CAA) 112 regulated toxic substances: (^{2}H)Chloroform

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

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Listed

SARA 302/304

Composition/information on ingredients

Section 15. Regulatory information

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
1H Lineshape						
Trichloromethane	0.1 - 1	Yes.	-	-	-	-
ID 1						
(^{2}H)Chloroform	60 - 100	Yes.	-	-	-	-
1H S/N						
(^{2}H)Chloroform	60 - 100	Yes.	-	-	-	-
App Test - Indanone						
(^{2}H)Chloroform	60 - 100	Yes.	-	-	-	-

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Autotest, no salt						
Methanol (^{13}C)	< 0.1	Yes.	No.	No.	Yes.	Yes.
1H Lineshape						
($^{2}H_{6}$)Acetone	60 - 100	Yes.	No.	No.	Yes.	No.
Trichloromethane	0.1 - 1	No.	No.	No.	Yes.	Yes.
ID 1						
(^{2}H)Chloroform	60 - 100	No.	No.	No.	Yes.	Yes.
Iodomethane (^{13} C)	0.1 - 1	No.	No.	No.	Yes.	Yes.
Trimethyl phosphite	0.1 - 1	Yes.	No.	No.	Yes.	No.
13C S/N ASTM						
($^{2}H_{6}$)Benzene	30 - 60	Yes.	No.	No.	Yes.	Yes.
1,4-Dioxane	30 - 60	Yes.	No.	No.	Yes.	Yes.
1H S/N						
(^{2}H)Chloroform	60 - 100	No.	No.	No.	Yes.	Yes.
Ethylbenzene	< 0.1	Yes.	No.	No.	Yes.	Yes.
Hi Temp Cal						
Ethanediol	60 - 100	No.	No.	No.	Yes.	No.
Lo Temp Cal						
Methanol	60 - 100	Yes.	No.	No.	Yes.	Yes.
App Test - Indanone						
(^{2}H)Chloroform	60 - 100	No.	No.	No.	Yes.	Yes.

SARA 313

Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	**1H Lineshape** Trichloromethane	 67-66-3	 0.1 - 1
	ID 1 (^{2}H)Chloroform Iodomethane (^{13} C)	 865-49-6 4227-95-6	 60 - 100 0.1 - 1
	13C S/N ASTM ($^{2}H_{6}$)Benzene 1,4-Dioxane	 1076-43-3 123-91-1	 30 - 60 30 - 60
	1H S/N (^{2}H)Chloroform Ethylbenzene	 865-49-6 100-41-4	 60 - 100 0.1 - 1
	Hi Temp Cal Ethanediol	 107-21-1	 60 - 100
	Lo Temp Cal Methanol	 67-56-1	 60 - 100
	App Test - Indanone (^{2}H)Chloroform	 865-49-6	 60 - 100
Supplier notification	**1H Lineshape** Trichloromethane	 67-66-3	 0.1 - 1
	ID 1 (^{2}H)Chloroform Iodomethane (^{13} C)	 865-49-6 4227-95-6	 60 - 100 0.1 - 1
	13C S/N ASTM ($^{2}H_{6}$)Benzene 1,4-Dioxane	 1076-43-3 123-91-1	 30 - 60 30 - 60
	1H S/N (^{2}H)Chloroform Ethylbenzene	 865-49-6 100-41-4	 60 - 100 <0.1
	Hi Temp Cal Ethanediol	 107-21-1	 60 - 100
	Lo Temp Cal Methanol	 67-56-1	 60 - 100
	App Test - Indanone (^{2}H)Chloroform	 865-49-6	 60 - 100

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: CHLOROFORM; METHANOL; ETHYLENE GLYCOL; 1,4-DIOXANE; BENZENE; ACETONE

New York : The following components are listed: Chloroform; Methane, trichloro-; Methanol; Ethylene glycol; 1,4-Dioxane; Benzene; Acetone; 2-Propanone; Chloroform; Methane, trichloro-

Section 15. Regulatory information

New Jersey : The following components are listed: CHLOROFORM; METHANE, TRICHLORO-; METHYL ALCOHOL; METHANOL; ETHYLENE GLYCOL; 1,2-ETHANEDIOL; 1, 4-DIOXANE; 1,4-DIETHYLENE DIOXIDE; BENZENE; ACETONE; 2-PROPANONE; CHLOROFORM; METHANE, TRICHLORO-

Pennsylvania : The following components are listed: METHANE, TRICHLORO-; METHANOL; 1, 2-ETHANEDIOL; 1,4-DIOXANE; BENZENE; 2-PROPANONE; METHANE, TRICHLORO-

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Autotest, no salt				
Methanol (^{13}C)	No.	Yes.	No.	No.
1H Lineshape				
Trichloromethane	Yes.	Yes.	20 µg/day (ingestion) 40 µg/day (inhalation)	No.
ID 1				
(^{2}H)Chloroform	Yes.	Yes.	20 µg/day (ingestion) 40 µg/day (inhalation)	No.
Iodomethane (^{13} C)	Yes.	No.	No.	No.
13C S/N ASTM				
($^{2}H_{6}$)Benzene	Yes.	Yes.	6.4 µg/day (ingestion) 13 µg/day (inhalation)	24 µg/day (ingestion) 49 µg/day (inhalation)
1,4-Dioxane	Yes.	No.	Yes.	No.
1H S/N				
(^{2}H)Chloroform	Yes.	Yes.	20 µg/day (ingestion) 40 µg/day (inhalation)	No.
Ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.
Lo Temp Cal				
Methanol	No.	Yes.	No.	No.
App Test - Indanone				
(^{2}H)Chloroform	Yes.	Yes.	20 µg/day (ingestion) 40 µg/day (inhalation)	No.

Canada inventory : Not determined.

International regulations

Section 15. Regulatory information

International lists : **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory: Not determined.
Korea inventory: Not determined.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan inventory (CSNN): Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

Section 16. Other information

History

Date of issue : 02/25/2014.

Date of previous issue : No previous validation.

Version : 1

Indicates information that has changed from previously issued version.

Notice to reader

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