



## Section 2. Hazards identification

H304	ASPIRATION HAZARD - Category 1
<b>A2-105</b>	
H227	FLAMMABLE LIQUIDS - Category 4
H332	ACUTE TOXICITY (inhalation) - Category 4
H315	SKIN IRRITATION - Category 2
H351	CARCINOGENICITY - Category 2
H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (bone marrow, liver, thymus) - Category 2
H304	ASPIRATION HAZARD - Category 1

### 2.2 GHS label elements

#### Hazard pictograms

:  A2-103



A2-104



A2-105



#### Signal word

:  A2-103

A2-104

A2-105

Danger

Danger

Danger

#### Hazard statements

:  A2-103

A2-104

A2-105

H227 - Combustible liquid.  
 H332 - Harmful if inhaled.  
 H315 - Causes skin irritation.  
 H351 - Suspected of causing cancer.  
 H304 - May be fatal if swallowed and enters airways.  
 H373 - May cause damage to organs through prolonged or repeated exposure. (bone marrow, liver, thymus)  
 H227 - Combustible liquid.  
 H332 - Harmful if inhaled.  
 H315 - Causes skin irritation.  
 H351 - Suspected of causing cancer.  
 H304 - May be fatal if swallowed and enters airways.  
 H373 - May cause damage to organs through prolonged or repeated exposure. (bone marrow, liver, thymus)  
 H227 - Combustible liquid.  
 H332 - Harmful if inhaled.  
 H315 - Causes skin irritation.  
 H351 - Suspected of causing cancer.  
 H304 - May be fatal if swallowed and enters airways.  
 H373 - May cause damage to organs through prolonged or repeated exposure. (bone marrow, liver, thymus)

## Section 2. Hazards identification

### Precautionary statements

#### Prevention

: A2-103

P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.  
 P210 - Keep away from flames and hot surfaces. - No smoking.  
 P271 - Use only outdoors or in a well-ventilated area.

A2-104

P260 - Do not breathe vapor.  
 P264 - Wash hands thoroughly after handling.  
 P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.  
 P210 - Keep away from flames and hot surfaces. - No smoking.  
 P271 - Use only outdoors or in a well-ventilated area.

A2-105

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 P210 - Keep away from flames and hot surfaces. - No smoking.  
 P271 - Use only outdoors or in a well-ventilated area.

#### Response

: A2-103

P260 - Do not breathe vapor.  
 P264 - Wash hands thoroughly after handling.  
 P314 - Get medical attention if you feel unwell.  
 P308 + P313 - IF exposed or concerned: Get medical attention.  
 P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.  
 P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

A2-104

P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.  
 P332 + P313 - If skin irritation occurs: Get medical attention.  
 P314 - Get medical attention if you feel unwell.  
 P308 + P313 - IF exposed or concerned: Get medical attention.  
 P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.  
 P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician.

## Section 2. Hazards identification

	A2-105	<p>Do NOT induce vomiting.                      P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.                      P332 + P313 - If skin irritation occurs: Get medical attention.                      P314 - Get medical attention if you feel unwell.                      P308 + P313 - IF exposed or concerned: Get medical attention.                      P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.                      P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.                      P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.                      P332 + P313 - If skin irritation occurs: Get medical attention.</p>
<b>Storage</b>	: A2-103	<p>P405 - Store locked up.                      P403 - Store in a well-ventilated place.                      P235 - Keep cool.</p>
	A2-104	<p>P405 - Store locked up.                      P403 - Store in a well-ventilated place.                      P235 - Keep cool.</p>
	A2-105	<p>P405 - Store locked up.                      P403 - Store in a well-ventilated place.                      P235 - Keep cool.</p>
<b>Disposal</b>	: A2-103	<p>P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</p>
	A2-104	<p>P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</p>
	A2-105	<p>P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</p>
<b>Supplemental label elements</b>	: A2-103	None known.
	A2-104	None known.
	A2-105	None known.
<b>2.3 Other hazards</b>		
<b>Hazards not otherwise classified</b>	: A2-103	None known.
	A2-104	None known.
	A2-105	None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: A2-103	Substance
	A2-104	Mixture
	A2-105	Mixture

## Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
<b>A2-103</b> Fuels, diesel, No 2	100	68476-34-6
<b>A2-104</b> Fuels, diesel, No 2	≥90	68476-34-6
<b>A2-105</b> Fuels, diesel, No 2	≥90	68476-34-6

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

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

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

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<b>Eye contact</b>	: <b>A2-103</b>	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.
	A2-104	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.
	A2-105	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.
<b>Inhalation</b>	: <b>A2-103</b>	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.
	A2-104	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

## Section 4. First aid measures

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.

A2-105

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Skin contact

: A2-103

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.

A2-104

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.

A2-105

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

### Ingestion

: A2-103

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

A2-104

## Section 4. First aid measures

A2-105

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

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	: A2-103 A2-104 A2-105	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Inhalation</b>	: A2-103 A2-104 A2-105	Harmful if inhaled. Harmful if inhaled. Harmful if inhaled.
<b>Skin contact</b>	: A2-103 A2-104 A2-105	Causes skin irritation. Causes skin irritation. Causes skin irritation.
<b>Ingestion</b>	: A2-103 A2-104 A2-105	May be fatal if swallowed and enters airways. May be fatal if swallowed and enters airways. May be fatal if swallowed and enters airways.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: A2-103  A2-104  A2-105	Adverse symptoms may include the following: pain or irritation watering redness Adverse symptoms may include the following: pain or irritation watering redness Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: A2-103 A2-104 A2-105	No specific data. No specific data. No specific data.



## Section 4. First aid measures

<b>Skin contact</b>	: A2-103	Adverse symptoms may include the following: irritation redness
	A2-104	Adverse symptoms may include the following: irritation redness
	A2-105	Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	: A2-103	Adverse symptoms may include the following: nausea or vomiting
	A2-104	Adverse symptoms may include the following: nausea or vomiting
	A2-105	Adverse symptoms may include the following: nausea or vomiting

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

<b>Notes to physician</b>	: A2-103	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	A2-104	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	A2-105	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: A2-103	No specific treatment.
	A2-104	No specific treatment.
	A2-105	No specific treatment.
<b>Protection of first-aiders</b>	: A2-103	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.
	A2-104	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.
	A2-105	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.

See toxicological information (Section 11)



## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: A2-103	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	A2-104	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
	A2-105	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
<b>Unsuitable extinguishing media</b>	: A2-103	Do not use water jet.
	A2-104	Do not use water jet.
	A2-105	Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

<b>Specific hazards arising from the chemical</b>	: A2-103	Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
	A2-104	Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
	A2-105	Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
<b>Hazardous thermal decomposition products</b>	: A2-103	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	A2-104	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	A2-105	Decomposition products may include the following materials: carbon dioxide carbon monoxide

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	: A2-103	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.
	A2-104	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.
	A2-105	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.

## Section 5. Fire-fighting measures


<b>Special protective equipment for fire-fighters</b>	: <del>A</del> 2-103	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	A2-104	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	A2-105	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

<b>For non-emergency personnel</b>	: <del>A</del> 2-103	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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	A2-104	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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	A2-105	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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
<b>For emergency responders</b>	: <del>A</del> 2-103	If specialized 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".
	A2-104	If specialized 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".
	A2-105	If specialized 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".

## Section 6. Accidental release measures


<b>6.2 Environmental precautions</b>	:  A2-103	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).
	A2-104	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).
	A2-105	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

<b>Methods for cleaning up</b>	:  A2-103	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.
	A2-104	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.
	A2-105	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	:  A2-103	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 swallow. 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.
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## Section 7. Handling and storage

Empty containers retain product residue and can be hazardous. Do not reuse container.

A2-104

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 swallow. 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. Empty containers retain product residue and can be hazardous. Do not reuse container.

A2-105

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 swallow. 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. Empty containers retain product residue and can be hazardous. Do not reuse container.

### Advice on general occupational hygiene

: A2-103

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.

A2-104

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.

A2-105

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.

## Section 7. Handling and storage

### 7.2 Conditions for safe storage, including any incompatibilities

: A2-103

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. See Section 10 for incompatible materials before handling or use.

A2-104

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. See Section 10 for incompatible materials before handling or use.

A2-105

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### 7.3 Specific end use(s)

#### Recommendations

: A2-103

A2-104

A2-105

Industrial applications, Professional applications.

Industrial applications, Professional applications.

Industrial applications, Professional applications.

#### Industrial sector specific solutions

: A2-103

A2-104

A2-105

Not applicable.

Not applicable.

Not applicable.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>A2-103</b> Fuels, diesel, No 2	<b>ACGIH TLV (United States, 3/2016).</b> <b>Absorbed through skin.</b> TWA: 100 mg/m <sup>3</sup> , (measured as total hydrocarbons) 8 hours. Form: Inhalable fraction and vapor
<b>A2-104</b> Fuels, diesel, No 2	<b>ACGIH TLV (United States, 3/2016).</b> <b>Absorbed through skin.</b> TWA: 100 mg/m <sup>3</sup> , (measured as total hydrocarbons) 8 hours. Form: Inhalable fraction and vapor
<b>A2-105</b> Fuels, diesel, No 2	<b>ACGIH TLV (United States, 3/2016).</b> <b>Absorbed through skin.</b> TWA: 100 mg/m <sup>3</sup> , (measured as total hydrocarbons) 8 hours. Form: Inhalable fraction and vapor

### 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.

#### 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.



## Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: A2-103	Liquid. [Fluid.]
	A2-104	Liquid. [Fluid.]
	A2-105	Liquid. [Fluid.]
<b>Color</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.
<b>Odor</b>	: A2-103	Characteristic.
	A2-104	Characteristic.
	A2-105	Characteristic.
<b>Odor threshold</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.
<b>pH</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.
<b>Melting point</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.
<b>Boiling point</b>	: A2-103	204°C (399.2°F)
	A2-104	204°C (399.2°F)
	A2-105	204°C (399.2°F)
<b>Flash point</b>	: A2-103	Closed cup: 69°C (156.2°F)
	A2-104	Closed cup: 69°C (156.2°F)
	A2-105	Closed cup: 69°C (156.2°F)
<b>Evaporation rate</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.
<b>Flammability (solid, gas)</b>	: A2-103	Not applicable.
	A2-104	Not applicable.
	A2-105	Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.
<b>Vapor pressure</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.
<b>Vapor density</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.



## Section 9. Physical and chemical properties

<b>Relative density</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	1.105
<b>Solubility</b>	: A2-103	Insoluble in the following materials: cold water and hot water.
	A2-104	Insoluble in the following materials: cold water and hot water.
	A2-105	Insoluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.
<b>Auto-ignition temperature</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.
<b>Decomposition temperature</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.
<b>Viscosity</b>	: A2-103	Not available.
	A2-104	Not available.
	A2-105	Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: A2-103	No specific test data related to reactivity available for this product or its ingredients.
	A2-104	No specific test data related to reactivity available for this product or its ingredients.
	A2-105	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: A2-103	The product is stable.
	A2-104	The product is stable.
	A2-105	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: A2-103	Under normal conditions of storage and use, hazardous reactions will not occur.
	A2-104	Under normal conditions of storage and use, hazardous reactions will not occur.
	A2-105	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: A2-103	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.
	A2-104	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.
	A2-105	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.

## Section 10. Stability and reactivity

### 10.5 Incompatible materials : A2-103

Reactive or incompatible with the following materials:

oxidizing materials

A2-104

Reactive or incompatible with the following materials:

oxidizing materials

A2-105

Reactive or incompatible with the following materials:

oxidizing materials

### 10.6 Hazardous decomposition products : A2-103

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

A2-104

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

A2-105

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
<b>A2-103</b> Fuels, diesel, No 2	LD50 Dermal LD50 Oral	Rabbit Rat	4300 mg/kg 7600 mg/kg	- -
<b>A2-104</b> Fuels, diesel, No 2	LD50 Dermal LD50 Oral	Rabbit Rat	4300 mg/kg 7600 mg/kg	- -
<b>A2-105</b> Fuels, diesel, No 2	LD50 Dermal LD50 Oral	Rabbit Rat	4300 mg/kg 7600 mg/kg	- -

#### Irritation/Corrosion

Not available.

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

## Section 11. Toxicological information

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
<b>A2-103</b> Fuels, diesel, No 2	Category 2	Not determined	bone marrow, liver and thymus
<b>A2-104</b> Fuels, diesel, No 2	Category 2	Not determined	bone marrow, liver and thymus
<b>A2-105</b> Fuels, diesel, No 2	Category 2	Not determined	bone marrow, liver and thymus

### Aspiration hazard

Name	Result
<b>A2-103</b> Fuels, diesel, No 2 Fuels, diesel, No 2	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1
<b>A2-104</b> A2-104 Fuels, diesel, No 2	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1
<b>A2-105</b> A2-105 Fuels, diesel, No 2	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

### **Information on the likely routes of exposure**

: **A2-103**  
A2-104  
A2-105

Routes of entry anticipated: Oral, Dermal, Inhalation.  
Routes of entry anticipated: Oral, Dermal, Inhalation.  
Routes of entry anticipated: Oral, Dermal, Inhalation.

### **Potential acute health effects**

#### **Eye contact**

: **A2-103**  
A2-104  
A2-105

No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.

#### **Inhalation**

: **A2-103**  
A2-104  
A2-105

Harmful if inhaled.  
Harmful if inhaled.  
Harmful if inhaled.

#### **Skin contact**

: **A2-103**  
A2-104  
A2-105

Causes skin irritation.  
Causes skin irritation.  
Causes skin irritation.

#### **Ingestion**

: **A2-103**  
A2-104  
A2-105

May be fatal if swallowed and enters airways.  
May be fatal if swallowed and enters airways.  
May be fatal if swallowed and enters airways.

### Symptoms related to the physical, chemical and toxicological characteristics

## Section 11. Toxicological information

<b>Eye contact</b>	: <del>A</del> 2-103	Adverse symptoms may include the following: pain or irritation watering redness
	A2-104	Adverse symptoms may include the following: pain or irritation watering redness
	A2-105	Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: <del>A</del> 2-103	No specific data.
	A2-104	No specific data.
	A2-105	No specific data.
<b>Skin contact</b>	: <del>A</del> 2-103	Adverse symptoms may include the following: irritation redness
	A2-104	Adverse symptoms may include the following: irritation redness
	A2-105	Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	: <del>A</del> 2-103	Adverse symptoms may include the following: nausea or vomiting
	A2-104	Adverse symptoms may include the following: nausea or vomiting
	A2-105	Adverse symptoms may include the following: nausea or vomiting

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

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

**General** : ~~A~~2-103

A2-104

A2-105

May cause damage to organs through prolonged or repeated exposure.

May cause damage to organs through prolonged or repeated exposure.

May cause damage to organs through prolonged or repeated exposure.

**Carcinogenicity** : ~~A~~2-103

A2-104

A2-105

Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

## Section 11. Toxicological information

<b>Mutagenicity</b>	: <del>A</del> 2-103 A2-104 A2-105	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Teratogenicity</b>	: <del>A</del> 2-103 A2-104 A2-105	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Developmental effects</b>	: <del>A</del> 2-103 A2-104 A2-105	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Fertility effects</b>	: <del>A</del> 2-103 A2-104 A2-105	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
<del>A</del> 2-103 Dermal Inhalation (dusts and mists)	4300 mg/kg 1.5 mg/l
<b>A2-104</b> Dermal Inhalation (dusts and mists)	4302.2 mg/kg 1.501 mg/l
<b>A2-105</b> Dermal Inhalation (dusts and mists)	4321.6 mg/kg 1.508 mg/l

## Section 12. Ecological information

### 12.1 Toxicity

Not available.

### 12.2 Persistence and degradability

Not available.

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<del>A</del> 2-103 Fuels, diesel, No 2	>3.3	-	low
<b>A2-104</b> Fuels, diesel, No 2	>3.3	-	low
<b>A2-105</b> Fuels, diesel, No 2	>3.3	-	low

### 12.4 Mobility in soil

## Section 12. Ecological information

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**12.5 Other adverse effects** :  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. 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

**DOT / TDG / Mexico / IMDG / IATA** : Not regulated.

### Additional information

De minimis quantities

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

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

## Section 15. Regulatory information

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

**U.S. Federal regulations** :  **SCA 8(a) CDR Exempt/Partial exemption:** All components are listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

## Section 15. Regulatory information

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

<b>Classification</b>	: A2-103	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
	A2-104	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
	A2-105	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
<b>A2-103</b> Fuels, diesel, No 2	100	Yes.	No.	No.	Yes.	Yes.
<b>A2-104</b> Fuels, diesel, No 2	≥90	Yes.	No.	No.	Yes.	Yes.
<b>A2-105</b> Fuels, diesel, No 2	≥90	Yes.	No.	No.	Yes.	Yes.

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

### California Prop. 65

Not available.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.



## Section 15. Regulatory information

### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

<b>Australia</b>	: All components are listed or exempted.
<b>Canada</b>	: All components are listed or exempted.
<b>China</b>	: <input checked="" type="checkbox"/> All components are listed or exempted.
<b>Europe</b>	: All components are listed or exempted.
<b>Japan</b>	: <input checked="" type="checkbox"/> <b>Japan inventory (ENCS):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.
<b>Malaysia</b>	: <input checked="" type="checkbox"/> Not determined.
<b>New Zealand</b>	: <input checked="" type="checkbox"/> All components are listed or exempted.
<b>Philippines</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Republic of Korea</b>	: <input checked="" type="checkbox"/> All components are listed or exempted.
<b>Taiwan</b>	: <input checked="" type="checkbox"/> All components are listed or exempted.
<b>Thailand</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Turkey</b>	: <input checked="" type="checkbox"/> Not determined.
<b>United States</b>	: All components are listed or exempted.
<b>Viet Nam</b>	: <input checked="" type="checkbox"/> Not determined.

## Section 16. Other information

### History

**Date of issue** : 07/12/2017

**Date of previous issue** : 05/23/2014.

**Version** : 3

Indicates information that has changed from previously issued version.

### Notice to reader

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