

SAFETY DATA SHEET

APCI Chemical Kit, Part Number G1947-60600

Section 1. Identification

Product identifier : APCI Chemical Kit, Part Number G1947-60600
Part no. (chemical kit) : G1947-60600
Part no. : APCI/APPI Tuning mix G2432A, G2432-60001
 ES/APCI Positive Ion Performance G1946-85004
 Standard

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

Material uses : Reagents and Standards for Analytical Chemistry Laboratory Use
 APCI/APPI Tuning mix A 100 mL container (For R&D Use Only)
 ES/APCI Positive Ion Performance 5 x 1 ml ampoule
 Standard

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

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

Section 2. Hazard(s) identification

Classification of the substance or mixture

APCI/APPI Tuning mix

H225 FLAMMABLE LIQUIDS - Category 2
 H302 ACUTE TOXICITY (oral) - Category 4
 H311 ACUTE TOXICITY (dermal) - Category 3
 H331 ACUTE TOXICITY (inhalation) - Category 3
 H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
 H351 CARCINOGENICITY - Category 2
 H370 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
 H373 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

ES/APCI Positive Ion Performance Standard

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

GHS label elements

Hazard pictograms : APCI/APPI Tuning mix



ES/APCI Positive Ion Performance Standard

Section 2. Hazard(s) identification

Signal word	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	DANGER DANGER
Hazard statements	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	H225 - Highly flammable liquid and vapour. H311 + H331 - Toxic in contact with skin or if inhaled. H302 - Harmful if swallowed. H319 - Causes serious eye irritation. H351 - Suspected of causing cancer. H370 - Causes damage to organs. H373 - May cause damage to organs through prolonged or repeated exposure. H225 - Highly flammable liquid and vapour. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness.
<u>Precautionary statements</u>		
Prevention	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P281 - Use personal protective equipment as required. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P233 - Keep container tightly closed. P271 - Use only outdoors or in a well-ventilated area. P260 - Do not breathe vapour. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves. Wear eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P233 - Keep container tightly closed. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing vapour. P264 - Wash hands thoroughly after handling.
Response	: APCI/APPI Tuning mix	P314 - Get medical attention if you feel unwell. P307 + P311 - IF EXPOSED: Call a POISON CENTER or physician. P304 + P340 + P311 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician. P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P302 + P352 + P312 - IF ON SKIN: Wash with plenty

Section 2. Hazard(s) identification

	ES/APCI Positive Ion Performance Standard	of soap and water. Call a POISON CENTER or physician if you feel unwell. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention. P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention. P405 - Store locked up. P403 - Store in a well-ventilated place. P235 - Keep cool. P405 - Store locked up. P403 - Store in a well-ventilated place. P235 - Keep cool. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Storage	: APCI/APPI Tuning mix	
	ES/APCI Positive Ion Performance Standard	
Disposal	: APCI/APPI Tuning mix	
	ES/APCI Positive Ion Performance Standard	
Supplemental label elements		
Additional warning phrases	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Not applicable. Not applicable.
Other hazards which do not result in classification	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	None known. None known.

Section 3. Composition and ingredient information

Substance/mixture	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Mixture Mixture
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CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
APCI/APPI Tuning mix		
Acetonitrile	≥60 - ≤75	75-05-8
Methanol	≥10 - ≤16	67-56-1
Acetone	≤5	67-64-1
Trichloromethane	≤1.9	67-66-3
ES/APCI Positive Ion Performance Standard		
Propan-2-ol	≥30 - ≤60	67-63-0

Section 3. Composition and ingredient information

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

Description of necessary first aid measures

Eye contact	: APCI/APPI Tuning mix	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.
	ES/APCI Positive Ion Performance Standard	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Inhalation	: APCI/APPI Tuning mix	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.
	ES/APCI Positive Ion Performance Standard	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	: APCI/APPI Tuning mix	Wash with plenty of soap and 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. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	ES/APCI Positive Ion Performance Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion	: APCI/APPI Tuning mix	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.
	ES/APCI Positive Ion Performance Standard	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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Causes serious eye irritation. Causes serious eye irritation.
Inhalation	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Toxic if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Toxic in contact with skin. No known significant effects or critical hazards.
Ingestion	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Harmful if swallowed. Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact	: APCI/APPI Tuning mix	Adverse symptoms may include the following: pain or irritation watering redness
	ES/APCI Positive Ion Performance Standard	Adverse symptoms may include the following: pain or irritation watering redness

Section 4. First aid measures

Inhalation	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No specific data. Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No specific data. No specific data.
Ingestion	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No specific data. No specific data.

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

Notes to physician	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No specific treatment. No specific treatment.
Protection of first-aiders	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	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. 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. Firefighting measures

Extinguishing media

Suitable extinguishing media	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Use dry chemical, CO ₂ , water spray (fog) or foam. Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Do not use water jet. Do not use water jet.

Specific hazards arising from the chemical	: APCI/APPI Tuning mix	Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable
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Section 5. Firefighting measures

	ES/APCI Positive Ion Performance Standard	distance to a source of ignition and flash back. Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Hazardous thermal decomposition products	: APCI/APPI Tuning mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds carbonyl halides cyanides Formaldehyde.
	ES/APCI Positive Ion Performance Standard	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Special protective actions for fire-fighters	: APCI/APPI Tuning mix	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.
	ES/APCI Positive Ion Performance Standard	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: APCI/APPI Tuning mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	ES/APCI Positive Ion Performance Standard	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hazchem code	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	•3YE •2YE

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: APCI/APPI Tuning mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	ES/APCI Positive Ion Performance Standard	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources.

Section 6. Accidental release measures

For emergency responders : APCI/APPI Tuning mix

ES/APCI Positive Ion
Performance Standard

No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

Environmental precautions : APCI/APPI Tuning mix

ES/APCI Positive Ion
Performance Standard

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up : APCI/APPI Tuning mix

ES/APCI Positive Ion
Performance Standard

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

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

Section 7. Handling and storage

Precautions for safe handling

Protective measures : APCI/APPI Tuning mix

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be

Section 7. Handling and storage

ES/APCI Positive Ion
Performance Standard

hazardous. Do not reuse container. Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: APCI/APPI Tuning mix

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.

ES/APCI Positive Ion
Performance Standard

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

Conditions for safe storage, including any incompatibilities : APCI/APPI Tuning mix

ES/APCI Positive Ion
Performance Standard

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
APCI/APPI Tuning mix Acetonitrile	Safe Work Australia (Australia, 1/2014). Absorbed through skin. STEL: 101 mg/m ³ 15 minutes. STEL: 60 ppm 15 minutes. TWA: 67 mg/m ³ 8 hours. TWA: 40 ppm 8 hours.
Methanol	Safe Work Australia (Australia, 1/2014). Absorbed through skin. STEL: 328 mg/m ³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 262 mg/m ³ 8 hours. TWA: 200 ppm 8 hours.
Acetone	Safe Work Australia (Australia, 1/2014). Absorbed through skin. STEL: 2375 mg/m ³ 15 minutes. STEL: 1000 ppm 15 minutes. TWA: 1185 mg/m ³ 8 hours. TWA: 500 ppm 8 hours.
Trichloromethane	Safe Work Australia (Australia, 1/2014). Absorbed through skin. TWA: 10 mg/m ³ 8 hours. TWA: 2 ppm 8 hours.
ES/APCI Positive Ion Performance Standard Propan-2-ol	Safe Work Australia (Australia, 1/2014). Absorbed through skin. STEL: 1230 mg/m ³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 983 mg/m ³ 8 hours. TWA: 400 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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](#)

Section 8. Exposure controls and personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- 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

Appearance

Physical state	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Liquid. Liquid.
Colour	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Ether. [Light] Colourless.
Odour	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Not available. Not available.
Odour threshold	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	70 ppm Not available.
pH	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Not available. Not available.
Melting point	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	-45°C (-49°F) Not available.
Boiling point	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	81.6°C (178.9°F) Not available.
Flash point	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Closed cup: 12.8°C (55°F) Closed cup: -18 to 23°C (-0.4 to 73.4°F)
Evaporation rate	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	5.79 (butyl acetate = 1) Not available.
Flammability (solid, gas)	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Not applicable. Not applicable.
Lower and upper explosive (flammable) limits	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Lower: 4.4% Upper: 16% Not available.

Section 9. Physical and chemical properties

Vapour pressure	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	11.6 kPa (87 mm Hg) [room temperature] Not available.
Vapour density	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	1.42 [Air = 1] Not available.
Relative density	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Not available. Not available.
Solubility	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Easily soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	-0.34 Not available.
Auto-ignition temperature	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	524°C (975.2°F) Not available.
Decomposition temperature	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Not available. Not available.
Viscosity	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Not available. Not available.

Section 10. Stability and reactivity

Reactivity	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	The product is stable. The product is stable.
Possibility of hazardous reactions	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas. Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Reactive or incompatible with the following materials: oxidizing materials Reactive or incompatible with the following materials: oxidizing materials

Section 10. Stability and reactivity

Hazardous decomposition products : APCI/APPI Tuning mix

ES/APCI Positive Ion
Performance Standard

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

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
APCI/APPI Tuning mix				
Acetonitrile	LC50 Inhalation Vapour LD50 Oral	Rat Rat	17100 ppm 2460 mg/kg	4 hours -
Methanol	LC50 Inhalation Vapour LC50 Inhalation Vapour LD50 Dermal	Rat Rat Rabbit	145000 ppm 64000 ppm 15800 mg/kg	1 hours 4 hours -
Acetone	LD50 Oral	Rat	5600 mg/kg	-
Trichloromethane	LD50 Oral LC50 Inhalation Vapour LD50 Dermal LD50 Oral	Rat Rat Rabbit Rat	5800 mg/kg 47702 mg/m ³ >20 g/kg 300 mg/kg	- 4 hours - -
ES/APCI Positive Ion Performance Standard				
Propan-2-ol	LD50 Dermal LD50 Oral	Rabbit Rat	12800 mg/kg 5000 mg/kg	- -

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
APCI/APPI Tuning mix					
Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
Acetone	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
Trichloromethane	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
ES/APCI Positive Ion Performance Standard					
Propan-2-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitisation

Section 11. Toxicological information

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
APCI/APPI Tuning mix Methanol Acetone	Category 1 Category 3	Not determined Not applicable.	Not determined Narcotic effects
ES/APCI Positive Ion Performance Standard Propan-2-ol	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
APCI/APPI Tuning mix Trichloromethane	Category 1	Not determined	Not determined

Aspiration hazard

Not available.

Information on likely routes of exposure : APCI/APPI Tuning mix
ES/APCI Positive Ion
Performance Standard

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

Potential acute health effects

Eye contact : APCI/APPI Tuning mix
ES/APCI Positive Ion
Performance Standard

Causes serious eye irritation.
Causes serious eye irritation.

Inhalation : APCI/APPI Tuning mix
ES/APCI Positive Ion
Performance Standard

Toxic if inhaled.
Can cause central nervous system (CNS) depression.
May cause drowsiness or dizziness.

Skin contact : APCI/APPI Tuning mix
ES/APCI Positive Ion
Performance Standard

Toxic in contact with skin.
No known significant effects or critical hazards.

Ingestion : APCI/APPI Tuning mix
ES/APCI Positive Ion
Performance Standard

Harmful if swallowed.
Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : APCI/APPI Tuning mix

ES/APCI Positive Ion
Performance Standard

Adverse symptoms may include the following:
pain or irritation
watering
redness
Adverse symptoms may include the following:
pain or irritation
watering
redness

Section 11. Toxicological information

Inhalation	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No specific data. Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No specific data. No specific data.
Ingestion	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No specific data. No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	May cause damage to organs through prolonged or repeated exposure. No known significant effects or critical hazards.
Carcinogenicity	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. No known significant effects or critical hazards.
Mutagenicity	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: APCI/APPI Tuning mix ES/APCI Positive Ion Performance Standard	No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
APCI/APPI Tuning mix	
Oral	331.6 mg/kg
Dermal	852.7 mg/kg
Inhalation (vapours)	8.112 mg/l

Section 11. Toxicological information

Other information	: APCI/APPI Tuning mix	Adverse symptoms may include the following: headache , redness , blurred or double vision . Eye contact can result in corneal damage or blindness. Repeated exposure may cause skin dryness or cracking.
	ES/APCI Positive Ion Performance Standard	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
APCI/APPI Tuning mix Acetonitrile	Acute IC50 3685000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 3600000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 1000000 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours
Methanol	Chronic NOEC 160000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
Acetone	Acute LC50 3289 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - Danio rerio - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours
	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 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
Trichloromethane	Chronic NOEC 0.1 mg/l Fresh water	Fish - Fundulus heteroclitus	4 weeks
	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 29000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 13.3 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
ES/APCI Positive Ion Performance Standard Propan-2-ol	Chronic EC10 3.61 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Chronic NOEC 1.8 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute EC50 10100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
APCI/APPI Tuning mix Acetone	OECD 301B Ready Biodegradability - CO2 Evolution Test	95 % - Readily - 28 days	-	-

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
APCI/APPI Tuning mix			
Acetonitrile	-	-	Readily
Acetone	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
APCI/APPI Tuning mix			
APCI/APPI Tuning mix	-0.34	-	low
Acetonitrile	-0.34	3	low
Methanol	-0.77	<10	low
Acetone	-0.23	3	low
Trichloromethane	1.97	690	high
ES/APCI Positive Ion Performance Standard			
Propan-2-ol	0.05	-	low

Mobility in soil






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

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADG	IMDG	IATA
UN number	UN3316	UN3316	UN3316
UN proper shipping name	CHEMICAL KIT	CHEMICAL KIT	Chemical kit
Transport hazard class(es)	9 	9 	9 
Packing group	II		

Section 14. Transport information

Environmental hazards	No.	No.	No.
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Additional information

- ADG** : **Hazchem code** 2Z
Special provisions 251, 340
- IMDG** : **Emergency schedules** F-A, _S-P_
Special provisions 251, 340
- IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 10 kg. Packaging instructions: 960. Cargo Aircraft Only: 10 kg. Packaging instructions: 960. Limited Quantities - Passenger Aircraft: 1 kg. Packaging instructions: Y960.
Special provisions A44, A163

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

Standard Uniform Schedule of Medicine and Poisons

6

Model Work Health and Safety Regulations - Scheduled Substances

<u>Ingredient name</u>	<u>Schedule</u>
APCI/APPI Tuning mix methanol	Restricted hazardous chemical [For spray painting if the substance contains more than 1% by volume]

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.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : Not determined.
- Canada** : Not determined.
- China** : Not determined.
- Europe** : Not determined.
- Japan** : **Japan inventory (ENCS):** Not determined.
Japan inventory (ISHL): Not determined.
- Malaysia** : Not determined.
- New Zealand** : Not determined.

Section 15. Regulatory information

Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision	: 12/02/2018
Date of previous issue	: 22/01/2018
Version	: 5.1

Key to abbreviations

: ADG = Australian Dangerous Goods
: ATE = Acute Toxicity Estimate
: BCF = Bioconcentration Factor
: GHS = Globally Harmonized System of Classification and Labelling of Chemicals
: IATA = International Air Transport Association
: IBC = Intermediate Bulk Container
: IMDG = International Maritime Dangerous Goods
: LogPow = logarithm of the octanol/water partition coefficient
: MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
: NOHSC = National Occupational Health and Safety Commission
: SUSMP = Standard Uniform Schedule of Medicine and Poisons
: UN = United Nations

Procedure used to derive the classification

Classification	Justification
APCI/APPI Tuning mix Flam. Liq. 2, H225 Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 3, H331 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 1, H370 STOT RE 2, H373	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method
ES/APCI Positive Ion Performance Standard Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336	On basis of test data Calculation method Calculation method

References : Not available.

✔ Indicates information that has changed from previously issued version.

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