

SAFETY DATA SHEET

KOVA® LIQUA-TROL CONTROLS

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation

Product name : KOVA® LIQUA-TROL CONTROLS
Product type : Liquid.
Component : Liqua-Trol Abnormal - 37036, 87112, 87112E, 87110, 87111, 87176, 87177, 87111E, 87176E, 87177E
 Liqua-Trol Normal - 37036, 87112, 87112E, 87122, 87123, 87122E, 87123E
 Level II

Use of the substance/preparation : For *in vitro* diagnostic use only.
 KOVA Liqua-TROL Level I (Abnormal), Level II (Normal), Abnormal with Microscopics, Normal with Microscopic Additives.

Company/undertaking identification

Manufacturer : Kova International, Inc.
 7272 Chapman Avenue, Suite B
 Garden Grove, CA 92841
 United States
 +1-714-902-1700

Emergency telephone number : Contact your local Poison Center

2. HAZARDS IDENTIFICATION

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Liqua-Trol Abnormal - Level I Not classified.
 Liqua-Trol Normal - Level II Xn; R22
 R52/53

Human health hazards : Liqua-Trol Abnormal - Level I Not applicable.
 Liqua-Trol Normal - Level II Harmful if swallowed.

Environmental hazards : Liqua-Trol Abnormal - Level I Not applicable.
 Liqua-Trol Normal - Level II Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation : Liqua-Trol Abnormal - Level I Preparation
 Liqua-Trol Normal - Level II Preparation

Ingredient name	CAS number	%	EC number	Classification
Liqua-Trol Normal - Level II Sodium azide	26628-22-8	0.1 - 1	247-852-1	T+; R28 [1] [2] R32 N; R50/53
See section 16 for the full text of the R-phrases declared above				

There are no ingredients or 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.

[1] Substance classified with a health or environmental hazard

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3. COMPOSITION/INFORMATION ON INGREDIENTS

[2] Substance with a workplace exposure limit

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

4. FIRST AID MEASURES

Inhalation	: Liqua-Trol Abnormal - Level I	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if adverse health effects persist or are severe.
	Liqua-Trol Normal - Level II	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if adverse health effects persist or are severe.
Ingestion	: Liqua-Trol Abnormal - Level I	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if adverse health effects persist or are severe.
	Liqua-Trol Normal - Level II	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if adverse health effects persist or are severe.
Skin contact	: Liqua-Trol Abnormal - Level I	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if adverse health effects persist or are severe.
	Liqua-Trol Normal - Level II	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if adverse health effects persist or are severe.
Eye contact	: Liqua-Trol Abnormal - Level I	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if adverse health effects persist or are severe.
	Liqua-Trol Normal - Level II	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if adverse health effects persist or are severe.
Protection of first-aiders	: Liqua-Trol Abnormal - Level I Liqua-Trol Normal - Level II	Not applicable. Not applicable.
Notes to physician	: 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.	
Specific treatments	: Not available.	

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

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5. FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : Liqua-Trol Abnormal - Level I Not applicable.
Liqua-Trol Normal - Level II Not applicable.

Special exposure hazards : This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
sulfur oxides
metal oxide/oxides

Special protective equipment for fire-fighters : Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Liqua-Trol Abnormal - Level I	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
	Liqua-Trol Normal - Level II	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
Environmental precautions	: Liqua-Trol Abnormal - Level I	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).
	Liqua-Trol Normal - Level II	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.

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6. ACCIDENTAL RELEASE MEASURES

Small spill	: Liqua-Trol Abnormal - Level I	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	Liqua-Trol Normal - Level II	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. HANDLING AND STORAGE

Handling	: Liqua-Trol Abnormal - Level I Wash thoroughly after handling. Liqua-Trol Normal - Level II Wash thoroughly after handling.
Storage	: Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
Packaging materials	
Recommended	: Use original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
Liqua-Trol Normal - Level II Sodium azide	EU OEL (Europe, 4/2006). Skin Notes: Indicative Short term limit value: 0.3 mg/m ³ 15 minute(s). Limit value: 0.1 mg/m ³ 8 hour(s).

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

Exposure controls

- Occupational exposure controls** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- 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.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- 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.
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
- Skin protection** : 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.
- 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance

- | | | |
|-----------------------|---------------------------------|------------------|
| Physical state | : Liqua-Trol Abnormal - Level I | Liquid. |
| | Liqua-Trol Normal - Level II | Liquid. |
| Colour | : Liqua-Trol Abnormal - Level I | Amber. Red. |
| | Liqua-Trol Normal - Level II | Green. / Yellow. |

Important health, safety and environmental information

- | | | |
|----------------------|---------------------------------|----------------------------------------------------------------------|
| pH | : Liqua-Trol Abnormal - Level I | 7.5 to 8 [Basic.] |
| | Liqua-Trol Normal - Level II | 7.5 to 8 [Basic.] |
| Boiling point | : Liqua-Trol Abnormal - Level I | ~ 100°C (212°F) |
| | Liqua-Trol Normal - Level II | ~100°C (212°F) |
| Solubility | : Liqua-Trol Abnormal - Level I | Easily soluble in the following materials: cold water and hot water. |
| | Liqua-Trol Normal - Level II | Easily soluble in the following materials: cold water and hot water. |

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10. STABILITY AND REACTIVITY

Stability	: The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.
Conditions to avoid	: No specific data.
Materials to avoid	: Incompatible with: oxidising agents, alkalis, metals, strong acids and heat.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION**Potential acute health effects**

Inhalation	: Liqua-Trol Abnormal - Level I	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
	: Liqua-Trol Normal - Level II	No known significant effects or critical hazards.
Ingestion	: Liqua-Trol Abnormal - Level I	No known significant effects or critical hazards.
	: Liqua-Trol Normal - Level II	Harmful if swallowed.
Skin contact	: Liqua-Trol Abnormal - Level I	No known significant effects or critical hazards.
	: Liqua-Trol Normal - Level II	No known significant effects or critical hazards.
Eye contact	: Liqua-Trol Abnormal - Level I	No known significant effects or critical hazards.
	: Liqua-Trol Normal - Level II	No known significant effects or critical hazards.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Sodium azide	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-

Conclusion/Summary : Not available.

Potential chronic health effects**Chronic toxicity**

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Chronic effects : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms

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11. TOXICOLOGICAL INFORMATION

Inhalation	: No specific data.	
Ingestion	: Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.	
Skin	: No specific data.	
Eyes	: No specific data.	
Target organs	: Liqua-Trol Abnormal - Level I Liqua-Trol Normal - Level II	Not available. Contains material which may cause damage to the following organs: mucous membranes, skin.
Other adverse effects	: Liqua-Trol Abnormal - Level I Liqua-Trol Normal - Level II	To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated. To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Environmental effects : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Sodium azide	-	Acute EC50 4.2 to 6.2 mg/L Fresh water	Daphnia	48 hours
	-	Acute LC50 0.68 mg/L Fresh water	Fish	96 hours
	-	Acute LC50 2750 ug/L Fresh water	Fish	96 hours

Conclusion/Summary : Not available.

Biodegradability

Conclusion/Summary : This product is unlikely to biodegrade at a significant rate.

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

13. DISPOSAL CONSIDERATIONS

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

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

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	: Liqua-Trol Normal - Level II	37036, 87112, 87112E, 87122, 87123, 87122E, 87123E

14. TRANSPORT INFORMATION**Regulatory information**

ADR/IMDG / IATA : Not regulated.

15. REGULATORY INFORMATION**EU regulations**

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Hazard symbol or symbols	: Liqua-Trol Abnormal - Level II Liqua-Trol Normal - Level Xn - Harmful I	Not applicable.
Risk phrases	: Liqua-Trol Abnormal - Level I Liqua-Trol Normal - Level II	This product is not classified according to EU legislation. R22- Harmful if swallowed. R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases	: Liqua-Trol Abnormal - Level I Liqua-Trol Normal - Level II	S36- Wear suitable protective clothing. S36- Wear suitable protective clothing.
Contains	: Liqua-Trol Normal - Level II Sodium azide	247-852-1
Product use	: Liqua-Trol Abnormal - Level I Liqua-Trol Normal - Level II	Industrial applications. Industrial applications.
Europe inventory	: Europe inventory:	All components are listed or exempted.
Other EU regulations	Additional warning phrases : Contains 2-Methyl-2H-isothiazol-3-one. May produce an allergic reaction.	
	Tactile warning of danger : Yes, applicable.	

16. OTHER INFORMATION

Full text of R-phrases referred to in sections 2 and 3 - Europe	: Liqua-Trol Abnormal - Level I Liqua-Trol Normal - Level II	Not applicable. R28- Very toxic if swallowed. R22- Harmful if swallowed. R32- Contact with acids liberates very toxic gas. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Full text of classifications referred to in sections 2 and 3 - Europe	: Liqua-Trol Abnormal - Level I Liqua-Trol Normal - Level II	Not applicable. T+ - Very toxic Xn - Harmful N - Dangerous for the environment

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Liqua-Trol Normal - Level II 37036, 87112, 87112E, 87122, 87123, 87122E, 87123E**16. OTHER INFORMATION****Date of previous issue** : 10/15/2014**Notice to reader*****DISCLAIMER: This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing the suitability of the Product for a particular application.***