

SIRCHIE LVS600 Ardrox, After Fuming Fluorescent Dye Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| SECTION 1: Identification | | |
|---|---|--|
| 1.1. Identification | | |
| Product form Product name Product code | : Mixtures : LVS600 Ardrox, After Fuming Fluorescent Dye : LVS600 | |
| 1.2. Recommended use and restriction | is on use | |
| Use of the substance/mixture | : Dyestuff/pigment | |
| 1.3. Supplier | | |
| SIRCHIE 100 Hunter Place Youngsville, NC 27596 - USA T 919-554-2244; 800-356-7311 - F 919-554-2266; 800-899-8181 http://www.sirchie.com | | |
| 1.4. Emergency telephone number | | |
| Emergency number | : 1.800.424.9300 (USA) +1-703-527-3887 (INTL) | |

: 1.800.424.9300 (USA) +1-703-527-3887 (INTL) CHEMTREC: 1.800.424.9300

SECTION 2: Hazard(s) identification

2.1. **Classification of the substance or mixture**

GHS-US classification

| Flammable liquids Category 2 | H225 | Highly flammable liquid and vapour |
|---|------|------------------------------------|
| Acute toxicity (oral) Category 3 | H301 | Toxic if swallowed |
| Acute toxicity (dermal) | H311 | Toxic in contact with skin |
| Category 3 Acute toxicity | H331 | Toxic if inhaled |
| (inhalation:dust,mist) Category 3 | | |
| Carcinogenicity Category | H350 | May cause cancer |
| Specific target organ toxicity (single exposure) Category 1 | H370 | Causes damage to organs |

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

| Hazard pictograms (GHS-US) | CH502 CH506 CH508 | |
|-----------------------------------|---|---|
| Signal word (GHS-US) | : Danger | |
| Hazard statements (GHS-US) | : H225 - Highly flammable liquid and vapour H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled H350 - May cause cancer H370 - Causes damage to organs | |
| Precautionary statements (GHS-US) | P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat, open flames, sparks No smoking. P233 - Keep container tightly closed. P240 - Ground/Bond container and receiving equipment P241 - Use explosion-proof electrical/ventilating/lighting equipment P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. | |
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| | P260 - Do not breathe mist, vapors. |
|---------------------------------|--|
| | P261 - Avoid breathing mist, vapors. |
| | P264 - Wash hands, forearms and face thoroughly after handling. |
| | P270 - Do not eat, drink or smoke when using this product. |
| | P271 - Use only outdoors or in a well-ventilated area. |
| | P280 - Wear protective gloves/protective clothing/eye protection/face protection. |
| | P301+P310 - If swallowed: Immediately call a doctor |
| | P302+P352 - If on skin: Wash with plenty of water |
| | P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse |
| | skin with water/shower |
| | P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing |
| | P307+P311 - If exposed: Call a poison center/doctor |
| | P308+P313 - If exposed or concerned: Get medical advice/attention. |
| | P311 - Call a poison center or doctor |
| | P312 - Call a doctor if you feel unwell |
| | P321 - Specific treatment (see supplemental first aid instruction on this label) |
| | P322 - Specific treatment (see supplemental first aid instruction on this label) |
| | P330 - Rinse mouth. |
| | P361+P364 - Take off immediately all contaminated clothing and wash it before reuse. |
| | P370+P378 - In case of fire: Use ABC-powder, extinguishing powder, alcohol resistant foam to |
| | extinguish. |
| | P403+P233 - Store in a well-ventilated place. Keep container tightly closed. |
| | P403+P235 - Store in a well-ventilated place. Keep cool. |
| | P405 - Store locked up. |
| | P501 - Dispose of contents/container to hazardous or special waste collection point, in |
| | accordance with local, regional, national and/or international regulation |
| 2.3. Other hazards which do not | result in classification |
| | |

Other hazards not contributing to the : None under normal conditions.

classification

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS-US classification |
|--|----------------------|---------|--|
| methanol | (CAS-No.) 67-56-1 | 97 | Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370 |
| distillates (petroleum), hydrotreated middle | (CAS-No.) 64742-46-7 | 2 - 1.8 | Carc. 1B, H350 |
| Proprietary Formulation | | >= 1 | Not classified |

Full text of hazard classes and H-statements : see section 16

| SECTION 4: First-aid measures | |
|--|---|
| 4.1. Description of first aid measures | |
| First-aid measures general | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest. | |
| First-aid measures after skin contact | : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. |
| First-aid measures after eye contact | : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. |
| First-aid measures after ingestion | : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. |
| 4.2. Most important symptoms and effe | cts (acute and delayed) |
| Symptoms/effects | : Not expected to present a significant hazard under anticipated conditions of normal use. |
| 4.3. Immediate medical attention and sp | pecial treatment, if necessary |

No additional information available

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| | | | | | - |
|--|--|-------------------------------------|---|--|---|
| SECTI | SECTION 5: Fire-fighting measures | | | | |
| 5.1. | 5.1. Suitable (and unsuitable) extinguishing media | | | | |
| Suitable extinguishing media : | | Foam. Dry powder. Carbon dioxide. W | 'ater spray. Sand. | | |
| Unsuitat | ble extinguishing media | : | Do not use a heavy water stream. | | |
| 5.2. | Specific hazards aris | ing from the chem | nical | | |
| Reactivit | ty | : | On heating: release of harmful/irritant | gases/vapours. Reacts with (some) acids/bases. | |
| 5.3. | Special protective eq | uipment and prec | autions for fire-fighters | | |
| Firefight | ing instructions | | · · | osed containers. Exercise caution when fighting any er from entering environment. | |
| Protectio | on during firefighting | : | Do not enter fire area without proper p | rotective equipment, including respiratory protection. | |
| SECTI | ON 6: Accidental r | elease measu | res | | |
| 6.1. | Personal precautions | s, protective equip | ment and emergency procedures | | |
| 6.1.1. | For non-emergency p | personnel | | | |
| Emerger | ncy procedures | : | Evacuate unnecessary personnel. | | |
| 6.1.2. | For emergency respo | onders | | | |
| Protectiv | /e equipment | : | Equip cleanup crew with proper protect | tion. | |
| Emerger | ncy procedures | : | Ventilate area. | | |
| 6.2. | Environmental preca | utions | | | |
| Prevent | entry to sewers and pub | lic waters. Notify at | uthorities if liquid enters sewers or publi | c waters. | |
| 6.3. | Methods and materia | I for containment | and cleaning up | | |
| Methods | s for cleaning up | : | Soak up spills with inert solids, such as spillage. Store away from other materia | s clay or diatomaceous earth as soon as possible. Collect als. | |
| 6.4. | Reference to other se | ections | | | |
| See Hea | ading 8. Exposure contro | ls and personal pro | otection. | | |
| SECTI | ON 7: Handling an | d storage | | | |
| 7.1. | Precautions for safe | handling | | | |
| Precauti | ons for safe handling | : | | with mild soap and water before eating, drinking or ide good ventilation in process area to prevent formation | |
| 7.2. | Conditions for safe s | torage, including | any incompatibilities | | |
| Storage | conditions | : | Keep only in the original container in a closed when not in use. | cool, well ventilated place away from : Keep container | |
| Incompa | tible products | : | Strong bases. Strong acids. | | |
| Incompa | atible materials | : | Sources of ignition. Direct sunlight. | | |
| SECTION 8: Exposure controls/personal protection | | | | | |
| 8.1. | | | | | |
| metha | methanol (67-56-1) | | | | |
| ACGIH | ł | ACGIH TWA (ppm | n) | 200 ppm | |
| | 1 | | m) | 250 ppm | |

| ACGIH | ACGIH ACGIH STEL (ppm) 250 ppm | | | | |
|---|--------------------------------|--|--|--|--|
| distillates (petroleum), hydrotreated middle (64742-46-7) | | | | | |
| Not applicable | | | | | |
| Proprietary Formulation | | | | | |
| Not applicable | | | | | |

8.2. Appropriate engineering controls

No additional information available

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8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure. Gas mask. Gloves. Protective goggles.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:

Wear appropriate mask



Other information:

Do not eat, drink or smoke during use.

| SECTION 9: Physical and chemical properties | | |
|---|--------------------------------|--|
| 9.1. Information on basic physical and o | chemical properties | |
| Physical state | : Liquid | |
| Appearance | : Powders. | |
| Color | : Yellow | |
| Odor | : Alcohol odour | |
| Odor threshold | : No data available | |
| рН | : No data available | |
| Melting point | : No data available | |
| Freezing point | : No data available | |
| Boiling point | : 78 °C | |
| Flash point | : 12 °C | |
| Relative evaporation rate (butyl acetate=1) | : No data available | |
| Flammability (solid, gas) | : Non flammable. | |
| Vapor pressure | : No data available | |
| Relative vapor density at 20 °C | : No data available | |
| Relative density | : No data available | |
| Solubility | : Moderately soluble in water. | |
| Log Pow | : No data available | |
| Auto-ignition temperature | : No data available | |
| Decomposition temperature | : No data available | |
| Viscosity, kinematic | : No data available | |
| Viscosity, dynamic | : No data available | |
| Explosion limits | : No data available | |
| Explosive properties | : No data available | |
| Oxidizing properties | : No data available | |
| 0.2 Other information | | |

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

On heating: release of harmful/irritant gases/vapours. Reacts with (some) acids/bases.

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10.2. Chemical stability Highly flammable liquid and vapour. Heating may cause a fire or explosion. Stable under normal conditions. 10.3. Possibility of hazardous reactions Not established. 10.4. Conditions to avoid Direct sunlight. Extremely high or low temperatures. 10.5. Incompatible materials Strong acids. Strong bases. 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information 11.1. Information on toxicological effects

Acute toxicity

: Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation:dust,mist: Toxic if inhaled.

| LVS600 Ardrox, After Fuming Fluorescent Dye | | |
|--|---|--|
| ATE US (oral) | 103.093 mg/kg body weight | |
| ATE US (dermal) | 309.278 mg/kg body weight | |
| ATE US (dust, mist) | 0.515 mg/l/4h | |
| methanol (67-56-1) | | |
| LD50 oral rat | 1187 - 2769 mg/kg body weight (BASF test, Rat, Male/female, Weight of evidence) | |
| LD50 dermal rabbit | 17100 mg/kg (Rabbit, Inconclusive, insufficient data) | |
| LC50 inhalation rat (mg/l) | 128.2 mg/l air (BASF test, 4 h, Rat, Male/female, Weight of evidence) | |
| ATE US (oral) | 100.000 mg/kg body weight | |
| ATE US (dermal) | 300.000 mg/kg body weight | |
| ATE US (gases) | 700.000 ppmV/4h | |
| ATE US (vapors) | 3.000 mg/l/4h | |
| ATE US (dust, mist) | 0.500 mg/l/4h | |
| Skin corrosion/irritation | : Not classified | |
| Serious eye damage/irritation | : Not classified | |
| Respiratory or skin sensitization | : Not classified | |
| Germ cell mutagenicity | : Not classified | |
| <i>c</i> , <i>i</i> | Based on available data, the classification criteria are not met | |
| Carcinogenicity | : May cause cancer. | |
| Reproductive toxicity | : Not classified | |
| | Based on available data, the classification criteria are not met | |
| Specific target organ toxicity – single exposure | : Causes damage to organs. | |
| Specific target organ toxicity – repeated exposure | : Not classified | |
| Aspiration hazard | : Not classified | |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. | |
| SECTION 12: Ecological information | | |

| SECTIO | IN 12: Ecological information | |
|-----------|-------------------------------|--|
| 12.1. | Toxicity | |
| methanc | ol (67-56-1) | |
| LC50 fish | h 1 | 15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value) |

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| methanol (67-56-1) | |
|--------------------|--|
| EC50 Daphnia 1 | 18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi- static system, Fresh water, Experimental value) |
| ErC50 (algae) | 22000 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value) |

| 12.2. Persistence and degradability | |
|---|--|
| LVS600 Ardrox, After Fuming Fluorescent Dye | |
| Persistence and degradability | Not established. |
| methanol (67-56-1) | |
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.6 - 1.12 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.42 g O₂/g substance |
| ThOD | 1.5 g O₂/g substance |

12.3. Bioaccumulative potential

| LVS600 Ardrox, After Fuming Fluorescent Dye | |
|---|---|
| Bioaccumulative potential | Not established. |
| methanol (67-56-1) | |
| BCF fish 1 | 1 - 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value) |
| Log Pow | -0.77 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

12.4. Mobility in soil

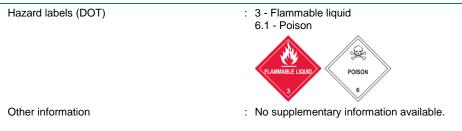
| methanol (67-56-1) | |
|--------------------|---------------------------------------|
| Surface tension | 0.023 N/m (20 °C) |
| Log Koc | -0.890.21 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

| 12.5. Other adverse effects | |
|--|---|
| Effect on the global warming GWPmix comment | No known effects from this product.No known effects from this product. |
| Other information | : Avoid release to the environment. |
| SECTION 13: Disposal consideration | ns |
| 13.1. Disposal methods | |
| Product/Packaging disposal recommendations | : Dispose in a safe manner in accordance with local/national regulations. |
| Ecology - waste materials | : Avoid release to the environment. |
| SECTION 14: Transport information | |
| Department of Transportation (DOT) | |
| In accordance with DOT | |
| | |

| Transport document description | : UN1230 Methanol solution (FLAMMABLE LIQUID), 3, II |
|--------------------------------|---|
| UN-No.(DOT) | : UN1230 |
| Proper Shipping Name (DOT) | : Methanol solution |
| | FLAMMABLE LIQUID |
| Class (DOT) | : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120 |
| Packing group (DOT) | : II - Medium Danger |

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Transportation of Dangerous Goods

Transport by sea

Air transport

| Transport document description (IATA) | : UN UN1230 Methanol solution, 3, II |
|---------------------------------------|--------------------------------------|
| UN-No. (IATA) | : UN1230 |
| Proper Shipping Name (IATA) | : Methanol solution |
| Class (IATA) | : 3 - Flammable Liquids |
| Packing group (IATA) | : II - Medium Danger |

SECTION 15: Regulatory information

15.1. US Federal regulations No additional information available

15.2. International regulations CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

| 15.3. US State regulations | |
|---|-----|
| LVS600 Ardrox, After Fuming Fluorescent Dye | |
| U.S California - Proposition 65 - Carcinogens List | No |
| U.S California - Proposition 65 - Developmental Toxicity | Yes |
| U.S California - Proposition 65 - Reproductive Toxicity - Female | No |
| U.S California - Proposition 65 - Reproductive Toxicity - Male | No |

| SECTION 16: Other information | |
|-------------------------------|---|
| Data sources | REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. |
| Training advice | : Normal use of this product shall imply use in accordance with the instructions on the packaging. |
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| Other information | : None. |
|-------------------------|--|
| Full text of H-phrases: | |
| H225 | Highly flammable liquid and vapour |
| H301 | Toxic if swallowed |
| H311 | Toxic in contact with skin |
| H331 | Toxic if inhaled |
| H350 | May cause cancer |
| H370 | Causes damage to organs |
| NFPA health hazard | : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury. |
| NFPA fire hazard | : 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily. |
| NFPA reactivity | : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures. |
| Hazard Rating | |
| Health | : 2 Moderate Hazard - Temporary or minor injury may occur |
| Flammability | : 4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA) |
| Physical | : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors. |
| Personal protection | : H |
| | H - Splash goggles, Gloves, Synthetic apron, Vapor respirator |

SDS US (GHS HazCom 2012)

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.