

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : Florida TRPH Standard
 Product code : AL0-130884

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Phenova
 6390 Joyce Dr. Suite 100
 Golden, CO 80403 - United States
 T 1-866-942-2978 - F 1-866-283-0269
info@phenova.com - www.phenova.com

1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924
 ChemTel Assistance (International) +1 813-248-0585

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 |
| Skin corrosion/irritation Category 2 | H315 | Causes skin irritation |
| Serious eye damage/eye irritation Category 2 | H319 | Causes serious eye irritation |
| Specific target organ toxicity (repeated exposure) Category 1 | H372 | Causes damage to organs through prolonged or repeated exposure |

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H225 - Highly flammable liquid and vapour
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 - Keep container tightly closed.
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 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
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P314 - Get medical advice/attention if you feel unwell.
 P321 - Specific treatment (see supplemental first aid instruction on this label)
 P332+P313 - If skin irritation occurs: Get medical advice/attention.
 P337+P313 - If eye irritation persists: Get medical advice/attention.

Florida TRPH Standard

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
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

No additional information available

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 | Conc. |
|---------------------------------|--------------------|-------|
| carbon disulfide (Component) | (CAS-No.) 75-15-0 | 96.6 |

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 exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation | : Allow affected person to breathe fresh air. Allow the victim to rest. |
| First-aid measures after skin contact | : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. Get medical advice/attention. |
| 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 effects (acute and delayed)

| | |
|---|--|
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
| Symptoms/effects | : Not expected to present a significant hazard under anticipated conditions of normal use. |
| Symptoms/effects after skin contact | : Causes skin irritation. |

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Use extinguishing media appropriate for surrounding fire. Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|------------------|---|
| Fire hazard | : Highly flammable liquid and vapour. |
| Explosion hazard | : May form flammable/explosive vapor-air mixture. |

5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|------------------|---|
| General measures | : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. |
|------------------|---|

Florida TRPH Standard

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up in absorbent material. Collect spillage. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Do not eat, drink or smoke when using this product. Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment.

Storage conditions : Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source. Keep only in the original container in a cool, well ventilated place away from :

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Direct sunlight. Heat sources. Sources of ignition.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Florida TRPH Standard | | |
|-----------------------|--|--------------------|
| ACGIH | Local name | Carbon disulfide |
| ACGIH | ACGIH TWA (ppm) | 1 ppm |
| ACGIH | Remark (ACGIH) | PNS impair |
| ACGIH | Regulatory reference | ACGIH 2018 |
| OSHA | Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift | 100 ppm 30 mins. |
| OSHA | Remark (OSHA) | (2) See Table Z-2. |
| OSHA | Regulatory reference (US-OSHA) | OSHA |

| carbon disulfide (75-15-0) | | |
|----------------------------|--|--------------------|
| ACGIH | Local name | Carbon disulfide |
| ACGIH | ACGIH TWA (ppm) | 1 ppm |
| ACGIH | Remark (ACGIH) | PNS impair |
| ACGIH | Regulatory reference | ACGIH 2018 |
| OSHA | Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift | 100 ppm 30 mins. |
| OSHA | Remark (OSHA) | (2) See Table Z-2. |
| OSHA | Regulatory reference (US-OSHA) | OSHA |

Florida TRPH Standard

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

8.2. Appropriate engineering controls

Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.

Hand protection:

Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration. Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing. Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact

Respiratory protection:

Wear appropriate mask

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------------------------|
| Physical state | : Liquid |
| | : Colorless |
| | : characteristic |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Highly flammable liquid and vapour. |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : No data available |
| 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 |

Florida TRPH Standard

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

May release flammable gases. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| carbon disulfide (75-15-0) | |
|----------------------------|--------------------------------|
| LD50 oral rat | 3188 mg/kg (Rat, Oral) |
| LC50 inhalation rat (mg/l) | 25 mg/l (2 h, Rat, Inhalation) |
| ATE US (oral) | 3188 mg/kg body weight |
| ATE US (vapors) | 25 mg/l/4h |
| ATE US (dust, mist) | 25 mg/l/4h |

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after skin contact : Causes skin irritation.

SECTION 12: Ecological information

12.1. Toxicity

| carbon disulfide (75-15-0) | |
|----------------------------|---|
| LC50 fish 1 | 4 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Poecilia reticulata) |
| EC50 Daphnia 1 | 2.1 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna) |

12.2. Persistence and degradability

| Florida TRPH Standard | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

Florida TRPH Standard

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| carbon disulfide (75-15-0) | |
|-------------------------------|--|
| Persistence and degradability | Biodegradability in soil: no data available. Readily biodegradable in water. |

12.3. Bioaccumulative potential

| Florida TRPH Standard | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

| carbon disulfide (75-15-0) | |
|----------------------------|--|
| BCF fish 1 | 4.3 - 8 (Pisces) |
| BCF fish 2 | < 60 (Cyprinus carpio, Test duration: 6 weeks) |
| Log Pow | 1.94 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

12.4. Mobility in soil

| carbon disulfide (75-15-0) | |
|----------------------------|-------------------|
| Surface tension | 0.032 N/m (20 °C) |

12.5. Other adverse effects

| Florida TRPH Standard | |
|-----------------------|--|
| | |

| carbon disulfide (75-15-0) | |
|----------------------------|--|
| | |

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

- Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- Additional information : Handle empty containers with care because residual vapors are flammable.
- Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

- Transport document description : UN1131 Carbon disulfide (carbon disulfide), 3 (6.1), I
- UN-No.(DOT) : UN1131
- Proper Shipping Name (DOT) : Carbon disulfide
carbon disulfide
- Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
- Packing group (DOT) : I - Great Danger
- Subsidiary risk (DOT) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132
- Hazard labels (DOT) : 3 - Flammable liquid
6.1 - Poison



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 201
- DOT Packaging Bulk (49 CFR 173.xxx) : 243

Florida TRPH Standard

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|--|--|
| DOT Special Provisions (49 CFR 172.102) | : B16 - The lading must be completely covered with nitrogen, inert gas or other inert materials. T14 - 6 mm Prohibited 178.275(g)(3). TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: t_r is the maximum mean bulk temperature during transport, t_f is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (t_f) and the maximum mean bulk temperature during transportation (t_r) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d_{15} and d_{50} are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. TP7 - The vapor space must be purged of air by nitrogen or other means. TP13 - Self-contained breathing apparatus must be provided when this hazardous material is transported by sea. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : None |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : Forbidden |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : Forbidden |
| DOT Vessel Stowage Location | : D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded. |
| DOT Vessel Stowage Other | : 40 - Stow "clear of living quarters", 78 - Stow "separated longitudinally by an intervening complete compartment or hold from" explosives, 115 - If packaged in glass or earthenware inner packaging in wooden or fiberboard outer packaging, the maximum quantity on any vessel is 500 kg (equivalent to 450 L) |
| Emergency Response Guide (ERG) Number | : 131 |
| Other information | : No supplementary information available. |

Transportation of Dangerous Goods

Not applicable

Transport by sea

| | |
|---------------------------------------|---|
| Transport document description (IMDG) | : UN 1131 CARBON DISULPHIDE (carbon disulfide), 3 (6.1), I (-30°C c.c.) |
| UN-No. (IMDG) | : 1131 |
| Proper Shipping Name (IMDG) | : CARBON DISULPHIDE |
| Class (IMDG) | : 3 - Flammable liquids |
| Packing group (IMDG) | : I - substances presenting high danger |
| Subsidiary risks (IMDG) | : 6.1 - Toxic substances |
| Limited quantities (IMDG) | : 0 |

Air transport

| | |
|---------------------------------------|---|
| Transport document description (IATA) | : UN 1993 Flammable liquid, n.o.s., 3, II |
| UN-No. (IATA) | : 1993 |
| Proper Shipping Name (IATA) | : Flammable liquid, n.o.s. |
| Class (IATA) | : 3 - Flammable Liquids |
| Packing group (IATA) | : II - Medium Danger |

SECTION 15: Regulatory information

15.1. US Federal regulations

Florida TRPH Standard

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| carbon disulfide (75-15-0) | |
|--|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313 | |
| Listed on EPA Hazardous Air Pollutant (HAPS) | |
| EPA TSCA Regulatory Flag | TP - TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule. |
| CERCLA RQ | 100 lb |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 100 lb |
| SARA Section 302 Threshold Planning Quantity (TPQ) | 10000 lb |

15.2. International regulations

CANADA

| carbon disulfide (75-15-0) |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

EU-Regulations

No additional information available

National regulations

| carbon disulfide (75-15-0) |
|--|
| Listed on EPA Hazardous Air Pollutant (HAPS) |

15.3. US State regulations

| carbon disulfide (75-15-0) | | | | | |
|---|---|---|---|----------------------------------|-------------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) | Maximum allowable dose level (MADL) |
| No | Yes | Yes | Yes | | |

SECTION 16: Other information

Revision date : 10/23/2019

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.

Other information : None.

Full text of H-phrases:

| | |
|------|--|
| H225 | Highly flammable liquid and vapour |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H372 | Causes damage to organs through prolonged or repeated exposure |

Phenova US SDS REV

Copyright 2015 Phenova, Inc. License granted to make paper copies for internal use. The information contained in this Safety Data Sheet is based on our current knowledge. The information contained in this document should be used only as a guide for appropriate safety precautions and should not be considered to be all inclusive. Users should make their own investigation to determine the suitability of the information for their particular purposes. The document does not represent any guarantee of the properties of the product. Phenova, Inc. shall not be held liable for any damage resulting from the handling or use of this product. Visit the Terms and Conditions of Sale link at www.phenova.com for additional terms and conditions of sale.