



Latest revision date: 12/04/2015

Version: 1.6

United States
Safety Data Sheet

The Ortho Group
P.O. Box 190
Marysville, Ohio 43040
United States

24 h. EMERGENCY TELEPHONE NUMBER
CHEMTREC (U.S.) 1-800-424-9300
CHEMTREC (International) 1-703-527-3887
Non-Emergency Calls
1-937-644-0011

ORTHO TREE & SHRUB FRUIT TREE SPRAY CONCENTRATE

Section 1. Identification

GHS product identifier : ORTHO TREE & SHRUB FRUIT TREE SPRAY CONCENTRATE
Product type : Pesticide
SDS # : 320000005839
EPA Registration Number: : 70051-75-239

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

Use only in accordance with label directions.

Section 2. Hazards identification

This product is regulated by the Environmental Protection Agency (EPA) for label precautionary text see Section 15.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms



Signal word

: Warning

Hazard statements

: Combustible liquid.

Report
version.Re
port

Version: version

Date of issue/Date of revision: Validity date***.

Date of previous issue: 10/08/2015

Harmful if inhaled.
May cause an allergic skin reaction.

Precautionary statements

General	:	Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	:	Wear protective gloves. Wear eye or face protection. Keep away from flames and hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Contaminated work clothing should not be allowed out of the workplace.
Response	:	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. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
Storage	:	Store in a well-ventilated place. Keep cool.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	:	None known.
Hazards not otherwise classified	:	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Chemical name	:	Not available.
Other means of identification	:	Not available.

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

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit 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	:	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 irritation occurs.
Inhalation	:	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

Report
version.Re
port

Version: version

Date of issue/Date of revision: Validity date***.

Date of previous issue: 10/08/2015

- arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
- Skin contact** : 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. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Harmful if inhaled.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Report
version.Re
port

Version: version **Date of issue/Date of revision:** Validity date***. **Date of previous issue:** 10/08/2015

Section 5. Fire-fighting measures

Extinguishing media

- | | | |
|---|---|--|
| Suitable extinguishing media | : | Use dry chemical, CO ₂ , water spray (fog) or foam. |
| Unsuitable extinguishing media | : | Do not use water jet. |
| Specific hazards arising from the chemical | : | Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. |
| Hazardous thermal decomposition products | : | Decomposition products may include the following materials:
carbon dioxide
carbon monoxide |
| Special protective actions for fire-fighters | : | 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 | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- | | | |
|------------------------------------|---|--|
| For non-emergency personnel | : | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For emergency responders | : | 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 | : | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

Methods and materials for containment and cleaning up

- | | | |
|--------------|---|---|
| Spill | : | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non- |
|--------------|---|---|

Report
version.Re
port

Version: version

Date of issue/Date of revision: Validity date***.

Date of previous issue: 10/08/2015

combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- | | | |
|---|---|--|
| Protective measures | : | Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor 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. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| Advice on general occupational hygiene | : | 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 | : | 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. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |

Section 8. Exposure controls/personal protection

Occupational exposure limits

None.

- | | | |
|---|---|---|
| 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, vapor |
|---|---|---|

Report
version.Re
port

Version: version

Date of issue/Date of revision: Validity date***.

Date of previous issue: 10/08/2015

- 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Protective eyewear is not required, but may be used in situations where contact is expected.

Skin protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : No special protective clothing is required.
- 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** : 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.

Section 9. Physical and chemical properties

Appearance

- Physical state** : liquid [liquid]
- Color** : Yellow to red.
- Odor** : citrus garlic-like

Report
version.Re
port

Version: version

Date of issue/Date of revision: Validity date***.

Date of previous issue: 10/08/2015

Odor threshold	: Not available.
pH	: 3.4
Melting point	: 3 °C (37.40 °F)
Boiling point	: > 200 °C (392.00 °F)
Flash point	: 74 °C (165.20 °F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Lower: Not available. Upper: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 0.920
Solubility	: Not available.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic: Not available. Kinematic: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: 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
-------------------------	--------	---------	------	----------

Report
version.Re
port

Version: version

Date of issue/Date of revision: Validity date***.

Date of previous issue: 10/08/2015

	LD50 Oral	Rat	> 5,000 mg/kg	-
	LC50 Inhalation	Rat	2.35 mg/l	4 h
	LD50 Dermal	Rabbit	> 2,000 mg/kg	-

Conclusion/Summary : No known significant effects or critical hazards.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
	Eyes - Redness of the conjunctivae	Rabbit	1.0		-
	Skin - Erythema/Eschar	Rabbit	1.0		-

Conclusion/Summary

Skin : Mildly irritating
Eyes : May cause eye irritation.
Respiratory : May cause respiratory irritation

Sensitization

Product/ingredient name	Route of exposure	Species	Result
	Skin	Guinea pig	Sensitizing

Conclusion/Summary

Skin : May cause skin sensitization.
Respiratory : No results available.

Mutagenicity

Conclusion/Summary : No known significant effects or critical hazards.

Carcinogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Reproductive toxicity

Conclusion/Summary : No known significant effects or critical hazards.

Teratogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Not available.

Report
version.Re
port

Version: version

Date of issue/Date of revision: Validity date***.

Date of previous issue: 10/08/2015

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential chronic health effects

Conclusion/Summary : No known significant effects or critical hazards.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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.

Section 12. Ecological information

Toxicity

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : No known significant effects or critical hazards.

Mobility in soil

Soil/water partition coefficient (KOC) : 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 minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the

Report
version.Re
port

Version: version

Date of issue/Date of revision: Validity date***.

Date of previous issue: 10/08/2015

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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

<u>Regulatory information</u>	<u>UN no.</u>	<u>Proper shipping name</u>	<u>Class</u>	<u>PG*</u>	<u>Note</u>
DOT		Not Regulated			
IATA (C)	3082	Environmentally hazardous substance, liquid, n.o.s. (Pyrethrins and Pyrethroids)	9	(, III)	
IATA (P)	3082	Environmentally hazardous substance, liquid, n.o.s. (Pyrethrins and Pyrethroids)	9	(, III)	
IMDG	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	9	(, III)	
TDG		Not Regulated			
PG* : Packing group					

Section 15. Regulatory information

Precautionary statements

Signal word : CAUTION!

Emergency Overview : Keep out of reach of children.
Combustible liquid.
Keep away from heat, sparks and open flame.
Harmful if inhaled.
Avoid breathing dust, vapor or spray mist.
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

U.S. Federal regulations : **United States inventory (TSCA 8b):**
Not determined.

State regulations

California Prop. 65

Report
version.Re
port

Version: version

Date of issue/Date of revision: Validity date***.

Date of previous issue: 10/08/2015

Not available.

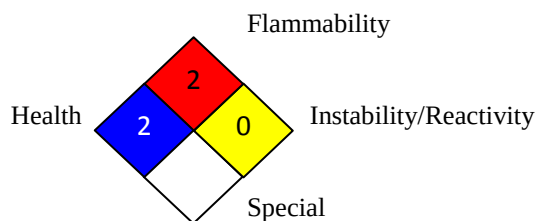
International lists

National inventory

Australia	:	Not determined.
Canada	:	Not determined.
China	:	Not determined.
Europe	:	Not determined.
Japan	:	Not determined.
Malaysia	:	Not determined.
New Zealand	:	Not determined.
Philippines	:	Not determined.
Republic of Korea	:	Not determined.
Taiwan	:	Not determined.

Section 16. Other information

National Fire Protection Association (U.S.A.):



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
H227	On basis of test data
H332	On basis of test data
H317	On basis of test data

Report
version.Re
port

Version: version

Date of issue/Date of revision: Validity date***.

Date of previous issue: 10/08/2015

History

Date of issue/Date of revision : Validity date***.
Version : 1.6

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

*Report
 version.Re
 port*

Version: *version*

Date of issue/Date of revision: *Validity date***.*

Date of previous issue: *10/08/2015*