

**OSHA Hazard Communication Standard
29 CFR 1910.1200. Prepared to GHS Rev 3.**

Date of issue: 10.20.2022

Trade name: T-OSA155

SECTION 1: Identification

Product identifier used on the label:

Product Name: T-OSA155

Other means of identification:

Product Code Number: T-OSA155

Recommended use of the chemical and restrictions on use:

Recommended use: Activator

Recommended restrictions: Uses other than those described above

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Company Name: Applichem

Company Address: 3211 Nebraska Ave, Suite 300
Council Bluffs, IA 51501
U.S.

Company Telephone: 402-731-9300

Contact Email: info@applicheminc.com

Emergency phone number: Chemtrec 1 (800)-424-9300

SECTION 2: Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

Physical hazards

Flammable liquid, category 2

Health hazards

Eye irritation, category 2A

Environmental hazards

Not adopted under OSHA paragraph (d) of §1910.1200

GHS Signal word: DANGER

GHS Hazard statement(s): Highly flammable liquid and vapor
Causes serious eye irritation

GHS Hazard symbol(s):



GHS Precautionary statement(s):

Prevention:

- Keep away from heat/sparks/open flames/hot surfaces.— No smoking.
- Keep container tightly closed.
- Ground/Bond container and receiving equipment
- Use explosion-proof electrical/ventilating/lighting equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wash thoroughly after handling.
- Wear protective gloves/protective clothing/eye protection/face protection

Response:

- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.
- In case of fire: Use water spray, water fog, foam, carbon dioxide or dry chemical to extinguish.

Storage:

- Store in a well-ventilated place. Keep cool.

Disposal:

- Dispose of contents/container to an approved disposal site in accordance with local/regional/national/ international regulations

Hazard(s) not otherwise classified (HNOC):

None known

Percentage of ingredient(s) of unknown acute toxicity:

Not applicable

SECTION 3: Composition/information on ingredients

Chemical name	CAS#	Concentration (weight %)
2-Propanol	67-63-0	98%
Titanium (IV) isopropoxide	546-68-9	2%

SECTION 4: First-aid measures

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Inhalation: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Seek medical advice.

Skin contact: Wash with water and soap and rinse thoroughly. Seek medical advice if irritation or pain develops.

Eye contact: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. If irritation occurs, call a physician.

Ingestion: Do NOT induce vomiting. If swallowed, wash mouth out with water provided the person is conscious. Follow with plenty of water. NEVER GIVE LIQUIDS TO AN UNCONCIOUS PERSON. Call a physician.

Most important symptoms/effects, acute and delayed:

May cause skin irritation. Causes serious eye irritation. May be harmful if swallowed. May cause irritation to the respiratory tract. Headache. Nausea

Indication of immediate medical attention and special treatment needed:

If any symptoms are observed, contact a physician and give them this SDS sheet. Treat symptomatically.

Note to physician: Activated charcoal slurry may be administered. Activated charcoal slurry is prepared by suspending 50 grams of activated charcoal in 400 ml water and mixing thoroughly. Administer 5 ml/kg.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):



HIGHLY FLAMMABLE LIQUID AND VAPOR: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers.

Runoff to sewer may create fire or explosion hazard. Containers may explode when heated.

Many liquids are lighter than water.

Hazardous combustion products may include the following substances: Isopropanol. Organic acid vapors. Titanium oxide.

Special protective equipment and precautions for fire-fighters:

Use water spray or fog for cooling exposed containers. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate all non-emergency personnel from area. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

No action shall be taken involving any personal risk or without suitable training. Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Environmental Precautions:

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. If spill occurs on water notify appropriate authorities.

Methods and material for containment and cleaning up:

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

Precautions for safe handling:

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including

combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibles:

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity.

Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS)

SECTION 8: Exposure controls/personal protection

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.

Substance	OSHA PEL	ACGIH TLV	NIOSH IDLH
2-Propanol	400 ppm TWA 980 mg/m ³ TWA	200 ppm TWA 400 ppm STEL	2000 ppm IDHL 400 ppm TWA 980 mg/m ³ TWA 500 ppm STEL 1225 mg/m ³ STEL
Titanium (IV) isopropoxide	None known	None known	None known

Appropriate engineering controls:

Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

If exposure limits have not been established, maintain airborne levels to an acceptable level.

Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Concentrations should be monitored hazardous substances in the workplace in accordance with recognized test methods. Mode, method, type and frequency of testing and measurement of harmful factors in the working environment should meet the requirements of local/regional/national laws.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Wear safety glasses, safety glasses with side shields or safety goggles. Use equipment for eye protection tested and approved under NIOSH standards.

Skin and hand protection: Wear chemical-resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Chemical resistant apron.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a chemical respirator with organic vapor cartridge and full facepiece. Use respirators and components tested and approved under appropriate government standards such as NIOSH).

General hygiene considerations: When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.):

Physical state:	Liquid
Color:	Clear
Odor:	Alcoholic.
Odor threshold:	Not available
pH:	Not available
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	78°C @ 1 mm Hg
Flash point:	13°C
Evaporation rate:	Not applicable
Flammability (solid, gas):	Not applicable.
Upper/lower flammability or explosive limits	
Lower limit (%):	2%
Upper limit (%):	12.7%
Vapor pressure:	4.4
Vapor density:	2.07
Relative density:	0.79
Solubility (ies):	Reacts with water.
Partition coefficient (n-octanol/water):	Not available
Auto-ignition temperature:	399°C
Decomposition temperature:	Not available
Viscosity:	Not available

SECTION 10: Stability and reactivity

Reactivity:	Not reactive under recommended storage and handling conditions.
Chemical stability:	Stable under recommended storage and handling conditions.
Possibility of hazardous reactions:	Material decomposes slowly in contact with moist air and rapidly in contact with water liberating isopropanol.
Conditions to avoid:	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition Products:	Isopropanol. Organic acid vapors. Titanium oxide.

SECTION 11: Toxicological information

Information on likely routes of exposure:

Inhalation:	May cause irritation to the respiratory tract. Headache. Nausea.
Ingestion:	May be harmful if swallowed.
Skin:	May cause skin irritation
Eyes:	Causes serious eye irritation.
Target Organs:	Skin, Eyes, Respiratory Tract

Symptoms related to the physical, chemical, and toxicological characteristics:

May cause irritation to the respiratory tract. Headache. Nausea. May cause skin irritation. Causes serious eye irritation. May be harmful if swallowed.

Delayed and immediate effects and chronic effects from short or long-term exposure:

Danger of serious damage to health by prolonged exposure through inhalation.

Numerical measures of toxicity (such as acute toxicity estimates):

Ingredient Information:

Substance	Test Type (species)	Value
2-Propanol	LD ₅₀ Oral (Rat)	1870 mg/kg
	LD ₅₀ Dermal (Rabbit)	4059 mg/kg
	LC ₅₀ Inhalation (Rat)	72600 mg/m ³ 4h
Titanium (IV) isopropoxide	LD ₅₀ Oral (Rat)	7460 mg/kg
	LD ₅₀ Dermal (Rabbit)	> 16 mL/kg
	LC ₅₀ Inhalation (Rat)	None known

Skin corrosion/irritation:	Does not meet the criteria for classification
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Serious eye damage/eye irritation:	Causes serious eye irritation
Respiratory sensitization:	Does not meet the criteria for classification
Skin sensitization:	Does not meet the criteria for classification
Germ cell mutagenicity:	Does not meet the criteria for classification
Carcinogenicity:	Does not meet the criteria for classification.
Reproductive toxicity:	Does not meet the criteria for classification.
Specific target organ toxicity-Single exposure:	Does not meet the criteria for classification
Specific target organ toxicity-Repeat exposure:	Does not meet the criteria for classification
Aspiration hazard:	Does not meet the criteria for classification

Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA:

Component	IARC	NTP	ACGIH	OSHA
2-Propanol	IARC - Group 3 (Not Classifiable)	Not listed	A4 - Not Classifiable as a Human Carcinogen	Not listed
Titanium (IV) isopropoxide	Not listed	Not listed	Not listed	Not listed

SECTION 12: Ecological information

Ecotoxicity (aquatic and terrestrial, where available):

Substance	Test Type	Species	Value
2-Propanol	LC ₅₀	Fish Pimephales promelas	9640 mg/L 96 h
	EC ₅₀	Aquatic Invertebrates Daphnia magna	13299 mg/L 48 h
	EC ₅₀	Algae Desmodesmus subspicatus	> 1000 mg/L 96 h
Titanium (IV) isopropoxide	LC ₅₀	Fish	None known
	EC ₅₀	Aquatic Invertebrates	None known
	EC ₅₀	Algae	None known

Persistence and Degradability:
 No data available

Bioaccumulative Potential:
 No data available

Mobility in Soil:
 No data available

Other adverse effects (such as hazardous to the ozone layer):

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations**Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.****Product**

Dispose of waste materials in accordance with applicable local and national laws and regulations. Where possible, recycling is preferred to disposal or incineration. Contact the proper local authorities.

Contaminated packaging

Since emptied containers retain product residue, follow label warnings even after container is emptied. Dispose of as unused product.

SECTION 14: Transport Information**US Department of Transportation Classification (49CFR)**

UN1219 ISOPROPANOL, 3, II

IMDG (Transport by sea)

UN1219 ISOPROPANOL, 3, II

IATA (Country variations may apply)

UN1219 ISOPROPANOL, 3, II

Environmental hazards

Marine pollutant: No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

No further relevant information available.

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.

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.

SECTION 15: Regulatory Information**USA:**

United States Federal Regulations: This SDS complies with the OSHA, 29 CFR 1910.1200. The product is classified as hazardous under OSHA.

Toxic Substances Control Act (TSCA) – All components are listed on the TSCA inventory or are exempted.

CERCLA RQ (lbs) Ingredients (> 0.1%):

None of the components are listed



SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311, 312 and 313:

Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A) (> 0.1%):

None of the components are listed

Section 311/312 (40 CFR 370) (> 0.1%):

Flammable (gases, aerosols, liquids or solids)

Serious eye damage or eye irritation

Section 313 Toxic Release Inventory (40 CFR 372) (> 0.1%):

2-Propanol: 1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

STATE REGULATIONS:

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements, you should contact the appropriate agency in your state.

California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986:

None of the components are listed

Massachusetts Right to Know:

2-Propanol is listed on the Massachusetts Right to Know list

New Jersey Right to Know:

2-Propanol is listed on the New Jersey Right to Know list

Pennsylvania Right to Know:

2-Propanol is listed on the Pennsylvania Right to Know list

SECTION 16: Other Information

Revision Date: Oct 20, 2022

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. The manufacturer MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. Given the variety of factors that can affect the use and application of this product, many of which are solely within the user's knowledge and control, the user is responsible for determining whether the usage of this product is fit for a particular purpose and suitable for the user's method of use or application. It is essential that the user, not the manufacturer, evaluates this product to determine whether it is fit for a particular purpose and suitable for the user's method of use or application.