

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 1,3,5-TRIOXANE

CAS Number: 110-88-3

1. IDENTIFICATION:

Product Code : 93435, 80276

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

Address : W-279, MIDC, TTC INDUSTRIAL AREA, THANE-BELAPUR ROAD, RABALE,
NAVI MUMBAI - 400 701, MAHARASHTRA, INDIA.

E-mail : sales@adventchembio.com

WEBSITE : www.adventchembio.com

Company Phone Number : +91 77770 84837

2. HAZARDS IDENTIFICATION:**Hazard classification****Physical hazards**


Flammable solids : Category 1

Health hazards

Reproductive toxicity : Category 2

Specific target organ toxicity - single exposure : Category 3

Labels elements :

Hazard symbol : 

Signal word : Danger

Hazard statement : Flammable solid.
May cause respiratory irritation.
Suspected of damaging the unborn child.

Precautionary statement

Prevention : Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
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.

Response : IF exposed or concerned: Get medical advice/ attention.
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 INHALED: Remove person to fresh air and keep comfortable for breathing.



MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 1,3,5-TRIOXANE

CAS Number: 110-88-3

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

- Storage** : Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Disposal** : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification** : Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

Ingredient	CAS Number	Percent	Hazardous
1,3,5-Trioxane	110-88-3	NLT 98.0%	Yes

4. FIRST AID MEASURES:

- General information** : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation** : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen.
- Skin contact** : Get medical attention if symptoms persist.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
- Most important symptoms/effects, acute and delayed** : Toxic if inhaled. Irritating to eyes, respiratory system and skin.
- Indication of immediate medical attention and special treatment needed** : Symptoms may be delayed. Treat symptomatically.

5. FIRE FIGHTING MEASURES:

- General information** : No data available

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam, dry powder or carbon dioxide.

Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

Special protective equipment and precautions for firefighters

Special firefighting procedures : Fight fire from a protected location. Move containers from fire area if you can do so without risk.



MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 1,3,5-TRIOXANE

CAS Number: 110-88-3

Special protective equipment for fire-fighters : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up : Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

Environmental precautions : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE:

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/ face protection. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities : Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS PERSONAL PROTECTION:

Control parameters

Appropriate engineering controls : No data available

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. 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. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Wear safety glasses with side shields (or goggles).

Hand protection : Chemical resistant gloves.

MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: 1,3,5-TRIOXANE

CAS Number: 110-88-3

Other	:	Wear suitable protective clothing.
Respiratory protection	:	In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapor cartridge.
Hygiene measures	:	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. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance	:	White crystals or crystalline chunk(s) or solid.
Odor	:	No data available
Solubility	:	No data available
Formula	:	C ₃ H ₆ O ₃
Molecular Weight	:	90.08 g/mol
Specific Gravity	:	1.38 g/cm ³ (20 °C)
pH	:	No data available
% Volatiles by volume @ 21C (70F)	:	No data available
Boiling Point	:	112 °C (1.013 hPa)
Melting Point	:	59 - 62 °C
Flash Point	:	45 °C
Vapor Density (Air=1)	:	No data available
Vapor Pressure (mm Hg)	:	11 hPa (20 °C)
Evaporation Rate (BuAc=1)	:	No data available

10. STABILITY AND REACTIVITY:

Reactivity	:	The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
Chemical stability	:	Material is stable under ambient conditions..
Possibility of hazardous reactions	:	Hazardous reactions : Risk of ignition or formation of inflammable gases or vapours with: Strong oxidizing agents A risk of explosion and/or of toxic gas formation exists with the following substances: alkalines acids Oxygen hydrogen peroxide.
Conditions to avoid	:	No data available
Incompatible materials	:	No data available
Hazardous decomposition products	:	In the event of fire: see section 5

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 1,3,5-TRIOXANE

CAS Number: 110-88-3

11. TOXICOLOGICAL INFORMATION:**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)**

Inhalation Product	LD50 Oral - Rat - > 2.000 mg/kg : LC50 Inhalation - Rat - male and female - 4 h - > 39,2 mg/l - dust/mist : LD50 Dermal - Rabbit - > 3.980 mg/kg Remarks: (Lit.)
Repeated dose toxicity Product	: No data available.
Skin corrosion/irritation Product	Skin - Rabbit : Result: No skin irritation (OECD Test Guideline 404)
Serious eye damage/eye irritation Product	Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405) : Eyes - Rabbit Result: No eye irritation Remarks: slight irritation
Respiratory or skin sensitization Product	: Maximisation Test - Guinea pig Did not cause sensitisation on laboratory animals.
Carcinogenicity Product	: No data available
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans	: No data available
US. National Toxicology Program (NTP) Report on Carcinogens	: No data available
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	: No data available.
Germ cell mutagenicity	Test Type: Ames test Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Remarks: (Lit.) : Test Type: Chromosome aberration test in vitro Test system: fibroblast Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative Test Type: Micronucleus test Result: negative Remarks: (Lit.) Species: Rat Application Route: Gavage

MATERIAL SAFETY DATA SHEET**PRODUCT NAME: 1,3,5-TRIOXANE**

CAS Number: 110-88-3

	Method: OECD Test Guideline 486
	Result: negative
In vitro Product	: No data available.
Reproductive toxicity Product	: Suspected of damaging the unborn child. Suspected human reproductive toxicant.
Specific target organ toxicity - single exposure Product	: May cause respiratory irritation.
Specific target organ toxicity - repeated exposure Product	: No data available.
Aspiration hazard Product	: No data available.
Other effects	: None known.

12. ECOLOGICAL INFORMATION:**Ecotoxicity****Acute hazards to the aquatic environment**

Fish Product	LC50 (Leuciscus idus (Golden orfe)): ca. 4.000 mg/l : Exposure time: 96 h Test Type: static test
Aquatic invertebrates Product	EC50 (Daphnia magna (Water flea)): > 1.000 mg/l : Exposure time: 48 h Test Type: static test

Chronic hazards to the aquatic environment

Fish Product	: No data available.
Aquatic invertebrates Product	: No data available.
Toxicity to Aquatic Plants Product:	EC50 (Desmodesmus subspicatus (green algae)): > 500 mg/l Exposure time: 72 h : Test Type: static test

Persistence and degradability

Biodegradation Product	Test Type: aerobic Inoculum: activated sludge : Result: Not rapidly biodegradable : Biodegradation: 0 - 10 % Exposure time: 28 d Method: OECD Test Guideline 301C
-------------------------------	--

BOD/COD ratio Product	: No data available.
------------------------------	----------------------

Bioaccumulative potential

Bioconcentration factor (BCF) Product	: No data available.
Partition coefficient n-octanol / water (log Kow)	: log Pow: -0,5 (25 °C) : Method: OECD Test Guideline 107



MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 1,3,5-TRIOXANE

CAS Number: 110-88-3

Product**Mobility in soil** : No data available**Other adverse effects** : Discharge into the environment must be avoided.**13. DISPOSAL CONSIDERATION:****Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.**Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied.**14. TRANSPORT INFORMATION:**

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN 1325	1,3,5-Trioxane	4.1	II	No
IMDG	UN 1325	1,3,5-Trioxane	4.1	II	No
IATA	UN 1325	1,3,5-Trioxane	4.1	II	No

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture

No Data Available.

MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: 1,3,5-TRIOXANE

CAS Number: 110-88-3

16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

Issue Date : 20/05/2026

Version : 02

Disclaimer: This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. ADVENT CHEMBIO PRIVATE LIMITED makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the technical instructor in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of ADVENT CHEMBIO PRIVATE LIMITED and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).