Product name	*M-1 CATALYST*		
Date of revision	*30 July 2025*	**SDS Number:**	*1161510*
First issue date	*19 January 2024*	**Version**	*10*

SAFETY DATA SHEET

M-1 CATALYST

Section 1. Identification

Product name : M-1 CATALYST

Product description : Organometallic Compound

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

Identified uses : catalyst

Uses advised against : This product is not recommended for any industrial, professional or consumer use other than the Identified Uses above.

Supplier : EXXONMOBIL CHEMICAL SERVICES (SHANGHAI) CO., LTD
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Section 2. Hazards identification

Classification of the substance or mixture is in accordance with national standard GB30000 series of Specification/Rules for classification and labeling of chemicals

Emergency overview

Physical state : Solid. [powder]

Colour : Dark Gray

Odour :

Catches fire spontaneously if exposed to air.
In contact with water releases flammable gases.
Causes severe skin burns and eye damage.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.

May form explosible dust-air mixture if small particles are generated during further processing, handling, or by other means.

IF INHALED: Get emergency medical help immediately. IF IN EYES: Get medical help. IF exposed or concerned, get medical advice. Get medical help if you feel unwell.

Section 2. Hazards identification

Classification of the substance or mixture : PYROPHORIC SOLIDS - Category 1
SUBSTANCES AND MIXTURES WHICH IN CONTACT WITH WATER EMIT FLAMMABLE GASES - Category 2
SKIN CORROSION/IRRITATION - Category 1A
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements :
H250 - Catches fire spontaneously if exposed to air.
H261 - In contact with water releases flammable gases.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.
H351 - Suspected of causing cancer.

Precautionary statements

Prevention :
P203 - Obtain, read and follow all safety instructions before use.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P222 - Do not allow contact with air.
P223 - Do not allow contact with water.
P231 + P232 - Handle and store contents under inert gas. Protect from moisture.
P260 - Do not breathe dust.
P264 - Wash thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing and eye or face protection.

Response :
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P335 + P334, P361, P354 - IF ON SKIN: Brush off loose particles from skin. Immerse in cool water. Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
P304 + P316, P340 - IF INHALED: Get emergency medical help immediately. Remove person to fresh air and keep comfortable for breathing.
P305 + P317, P354, P338 - IF IN EYES: Get medical help. Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P318 - IF exposed or concerned, get medical advice.
P319 - Get medical help if you feel unwell.
P363 - Wash contaminated clothing before reuse.
P370 + P378, P378 - In case of fire: Use dry chemical, vermiculite, dry sand, soda ash or lime to extinguish. Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Storage :
P402 + P404 - Store in a dry place. Store in a closed container.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.

Disposal :
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 2. Hazards identification

Physical and chemical hazards : Catches fire spontaneously if exposed to air. In contact with water releases flammable gases.

Health hazards : Causes severe skin burns and eye damage. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Environmental hazards : No known significant effects or critical hazards.

Contains : tetrahydrofuran; tri-n-hexylaluminum; chlorodiethylaluminum; triethyl aluminum and titanium trichloride

Other hazards which do not result in classification : May form explosible dust-air mixture if small particles are generated during further processing, handling, or by other means.

Nota : This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% (w/w)	Identifiers
tetrahydrofuran	≥10 - ≤30	CAS: 109-99-9
tri-n-hexylaluminum	≥1 - ≤15	CAS: 1116-73-0
chlorodiethylaluminum	≥1 - ≤10	CAS: 96-10-6
triethyl aluminum	≥1 - ≤5	CAS: 97-93-8
titanium trichloride	≥1 - ≤5	CAS: 7705-07-9

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Nota :

The product may contain varying levels of additives such as slip and anti-blocking agents, anti-oxidants, stabilizers and processing aids.

Section 4. First-aid measures

First aid

Inhalation : Get medical attention immediately. Call a poison center or physician. 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 arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Continue to rinse for at least 10 minutes. Immerse in cool water or wrap in wet bandages. Gloves should be worn when removing clothing to prevent additional exposure. Dispose of contaminated clothing and shoes. Brush off loose particles from skin. Get medical attention immediately. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Chemical burns must be treated promptly by a physician. Call a poison center or physician.

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 immediately. Chemical burns must be treated promptly by a physician.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Section 4. First-aid measures

Skin contact : Causes severe burns.

Eye contact : Causes serious eye damage.

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Ingestion : Adverse symptoms may include the following:
stomach pains

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

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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Gloves should be worn when removing clothing to prevent additional exposure.

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media : Dry Chemical, Vermiculite, Dry Sand, Soda Ash or Lime

Unsuitable extinguishing media : Water, carbon dioxide (CO2) or foam

Specific hazards arising from the chemical : Pyrophoric Runoff to sewer may create fire or explosion hazard. Catches fire spontaneously if exposed to air. In contact with water releases flammable gases. Adsorption of water will generate heat and possibly steam; closed containers may get very hot and build up pressure. If contact with water occurs, large quantities of heat and steam may be generated. Avoid contact with eyes. Avoid contact with skin. Avoid conditions which create dust. Avoid inhalation of dust. May re-ignite itself after fire is extinguished.

Hazardous combustion products : Flammable hydrocarbons, Hydrochloric acid (HCL), Incomplete combustion products, Metal Oxides, Oxides of carbon, Smoke, Fume

Section 5. Firefighting measures

Special protective actions for fire-fighters : Use standard firefighting procedures and consider the hazards of other involved materials. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Assure an extended cooling down period to prevent re-ignition. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. No action shall be taken involving any personal risk or without suitable training.

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

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Put on appropriate personal protective equipment. Keep away from water. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

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 spilt 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 material for containment and cleaning up

Small spill : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid allowing the spilled material to get wet or using water to clean up spillages or residues, unless the quantity remaining is very small. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid allowing the spilled material to get wet or using water to clean up spillages or residues, unless the quantity remaining is very small. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Hose over spill area to dilute the material. Warn other shipping. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Precautionary measures to prevent the occurrence of secondary disasters : Shut off all ignition sources. No flares, smoking or flames in hazard area. Use spark-proof tools and explosion-proof equipment. Prevent entry into sewers, water courses, basements or confined areas.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

Section 7. Handling and storage

Precautions for safe handling

Precautions for operating : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Handle under inert gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. This product should be handled using appropriate techniques that avoid exposure to atmospheric oxygen and moisture. 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. Keep away from any possible contact with water, because of violent reaction and possible flash fire. Empty containers retain product residue and can be hazardous. Do not reuse container. Prevent small spills and leakage to avoid slip hazard. Care should be taken when storing and handling this product. Apart from the specific nature of the polymer product, conditions such as humidity, sunlight and temperature have an influence on the way the product behaves during storage and handling. Special attention should be paid to avoid inappropriate stacking of palletised bags or other package units. Indeed, polymer products may be dimensionally unstable under certain conditions. Avoid conditions generating heat during transfer operations.

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.

Static Accumulator : This material is a static accumulator.

Conditions for safe storage : 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. Store locked up. Keep under an inert atmosphere. Eliminate all ignition sources. Keep away from water or moist air. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
tetrahydrofuran	**GBZ 2.1 (China, 7/2024)** PC-TWA 8 hours: 300 mg/m³. **ACGIH TLV (United States, 1/2024)** Absorbed through skin. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.
triethyl aluminum	**ACGIH TLV (United States, 1/2024) [Aluminum, metal and insoluble compounds]** TWA 8 hours: 1 mg/m³. Form: Respirable fraction.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

Section 8. Exposure controls/personal protection

Appropriate engineering controls : Use only with adequate ventilation. Engineering controls may be required to control the primary or secondary risks associated with this product. 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, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. SPECIAL PRECAUTIONS: Should significant vapors/fumes be generated during the thermal processing (rotomolding) of this product, it is recommended that work stations be monitored for the presence of thermal degradation by-products, such as aldehydes (formaldehyde, acetaldehyde, etc) and organic acids (formic acid, acetic acid, etc), which may evolve at elevated temperatures. Processors of this product should assure that adequate ventilation or other controls are used to control exposure. It is recommended that the current ACGIH-TLVs for the thermal degradation by-products be observed. Contact your local sales representative for further information.

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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. < 1 hour (breakthrough time): Nitrile, minimum 0.38 mm thickness or comparable protective barrier material

Body protection : 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.

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 : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance and physical state

Physical state : Solid. [powder]

Colour : Dark Gray

Odour : Not available.

Odour threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Boiling point or initial boiling point and boiling range : Not available.

Flash point : Closed cup: <38°C (<100.4°F)

Evaporation rate : Not available.

Flammability : Ignitable

Lower and upper explosion limit/flammability limit : Not applicable.

Vapour pressure : Not applicable.

Relative vapour density : Not applicable.

Relative density : <1

Solubility in water : Highly Reactive

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Not applicable.

Particle characteristics

Median particle size : 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 : Hazardous reactions or instability may occur under certain conditions of storage or use.
Conditions may include the following:
contact with water
contact with air
Reactions may include the following:
spontaneous flammability
liberation of flammable gas

Conditions to avoid : Do not allow contact with air. Heat, sparks, flame, and build up of static electricity., Moisture., High dust concentrations. Avoid elevated temperatures for prolonged periods of time.

Section 10. Stability and reactivity

Incompatible materials : Reactive or incompatible with the following materials:,water,air,Alcohol, Strong oxidisers

Hazardous decomposition products : Flammable hydrocarbons, Hydrochloric acid (HCL)

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
tetrahydrofuran	**Rat - Oral - LD50** 1650 mg/kg

Conclusion/Summary

Inhalation : Minimally Toxic. No end point data for material. Based on assessment of the components.

Dermal : Minimally Toxic. No end point data for material. Based on assessment of the components.

Oral : Minimally Toxic. No end point data for material. Based on assessment of the components.

Irritation/Corrosion

Conclusion/Summary

Skin : Corrosive to eyes and skin. May cause permanent damage. No end point data for material. Based on assessment of the components.

Eyes : Severely irritating, and may seriously damage eye tissue. No end point data for material. Based on assessment of the components.

Respiratory : May be irritating to the respiratory tract. The effects are irreversible. No end point data for material. Based on assessment of the components.

Respiratory or skin sensitization

Conclusion/Summary

Skin : Not expected to be a skin sensitizer. No end point data for material. Based on assessment of the components.

Respiratory : Not expected to be a respiratory sensitizer. No end point data for material.

Germ Cell Mutagenicity

Conclusion/Summary : Not expected to be a germ cell mutagen. No end point data for material. Based on assessment of the components.

Carcinogenicity

Conclusion/Summary : May cause cancer. No end point data for material. Based on assessment of the components.

Classification

Product/ingredient name	IARC
tetrahydrofuran	2B

Reproductive toxicity

Conclusion/Summary : Not expected to be a reproductive toxicant. No end point data for material. Based on assessment of the components.

Specific target organ toxicity (single exposure)

Conclusion/Summary : May cause drowsiness or dizziness. May cause respiratory irritation. No end point data for material. Based on assessment of the components.

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Product/ingredient name	Category	Target organs
M-1 CATALYST	Not applicable.	-

Conclusion/Summary : Not expected to cause organ damage from prolonged or repeated exposure. No end point data for material. Based on assessment of the components.

Aspiration hazard

Conclusion/Summary : Not expected to be an aspiration hazard. Based on physico-chemical properties of the material. No end point data for material.

Other information

Contains : Tetrahydrofuran (THF): Case reports of human exposures and studies conducted in rats and mice indicate that THF may cause liver and kidney damage at high concentrations. Transient narcosis or sedative effects have been observed in several subchronic and chronic inhalation studies conducted in rats and mice at high concentrations. Some evidence of carcinogenic activity in laboratory animals. AMORPHOUS SILICA : Most amorphous silicas (e.g., diatomaceous earth and precipitated silica) have relatively little adverse effects, although high aerosol concentrations may cause irritation of respiratory tract or, with prolonged exposure, possible benign pneumoconiosis. Aerosols of fused amorphous silica are thought to have greater potential to cause pulmonary fibrosis. Additives that are encapsulated in the polymer. Under the normal conditions for processing and use of this polymer the encapsulated additives are not expected to pose any health hazard. However, grinding of the polymer is not recommended without the use of appropriate measures to control exposure (see Section 8 - Engineering Controls).

Section 12. Ecological information

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

Toxicity

Conclusion/Summary

Acute toxicity : Not expected to be harmful to aquatic organisms.

Chronic toxicity : Not expected to demonstrate chronic toxicity to aquatic organisms

Persistence and degradability

Not determined.

Bioaccumulation/Accumulation

Not determined.

Mobility in soil

Not determined.

Other ecological information

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised 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 requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Section 14. Transport information

	JT/T617	IMDG	IATA
UN number	UN3393	UN3393	UN3393
UN proper shipping name	ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER REACTIVE (tri-n-hexylaluminum, titanium trichloride)	ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER-REACTIVE (tri-n-hexylaluminum, titanium trichloride)	Organometallic substance, solid, pyrophoric, water-reactive (tri-n-hexylaluminum, titanium trichloride)
Transport hazard class(es)	4.2 (4.3)	4.2 (4.3)	4.2 (4.3)
Label(s) / Mark(s)			
Packing group	I	I	I
Environmental hazards	No.	No.	No.

Additional information

IMDG : **Emergency schedules** F-G, S-M
Special provisions 274

IATA : **Quantity limitation** Passenger and Cargo Aircraft: Forbidden. Packaging instructions: Forbidden. Cargo Aircraft Only: Forbidden. Packaging instructions: Forbidden. Limited Quantities - Passenger Aircraft: Forbidden. Packaging instructions: Forbidden.

Special precautions for user : **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.

Extinguishing media

Suitable extinguishing media : Dry Chemical, Vermiculite, Dry Sand, Soda Ash or Lime

Section 14. Transport information

Unsuitable extinguishing media : Water, carbon dioxide (CO2) or foam

Incompatible materials : Reactive or incompatible with the following materials:,water,air,Alcohol, Strong oxidisers

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

The hazard classification for this material is in accordance with national standard GB30000 series of Specification/Rules for classification and labeling of chemicals

Refer to below China regulations (if applicable):

The General Rules for preparation of precautionary label for Chemicals (GB 15258-2009)

Regulations on the Safe Management of Hazardous Chemicals

Measures for the Environmental Management Registration of New Chemical Substances

Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste :

See Disposal Considerations section.

Inventory list

Please contact your supplier for information on the inventory status of this material.

Section 16. Other information

History

Date of issue/Date of revision : 30 July 2025

Date of previous issue : 30 July 2025

Version : 10

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Product code : 1161510

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