



SAFETY DATA SHEET

Section 1. Identification

Product Name:	Triiron dodecacarbonyl
Product Type:	Solid
CAS Number:	17685-52-8
Product Number:	FE5528
Recommended Use:	Laboratory chemicals, synthesis of substances.
Uses Advised Against:	This product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by Ereztech LLC.
Product Manufacturer:	Ereztech LLC 11555 Medlock Bridge Road, Suite 100 Johns Creek, GA 30097
Product Information:	(888) 658-1221
<u>In Case of an Emergency:</u>	CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International); CCN836180 *** Contact manufacturer for all non-emergency calls.

Section 2. Hazards Identification

Appearance/Odor:	Black powder or crystals, odor not determined.
Classification:	FLAMMABLE SOLIDS – Category 1, H228 ACUTE TOXICITY, ORAL – Category 4, H302 ACUTE TOXICITY, DERMAL – Category 4, H312 ACUTE TOXICITY, INHALATION – Category 4, H332 SPECIFIC TARGET ORGAN TOXICITY, SINGLE EXPOSURE – Category 1, H370 SPECIFIC TARGET ORGAN TOXICITY, REPEATED EXPOSURE – Category 1, H372

GHS Label Elements

Hazard Pictograms:



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Section 2. Hazards Identification

Signal Word:	DANGER
Hazard Statements:	H228: Flammable solid. H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled. H370: Causes damage to organs (optic nerve, CNS, respiratory system). H372: Causes damage to organs through prolonged or repeated exposure (liver).
<u>Precautionary Statements</u>	
Prevention:	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P240: Ground and bond container and receiving equipment. P241: Use explosion-proof electrical/ventilating/lighting/handling equipment. P260: Do not breathe dusts, aerosols, vapors or gases. P264: Wash hands and exposed skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
Response:	P301 + P317: IF SWALLOWED: Get medical help. P302 + P352: IF ON SKIN: Wash with plenty of water. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P308 + P316: IF exposed or concerned: Get emergency medical help immediately. P317: Get medical help. P319: Get medical help if you feel unwell. P330: Rinse mouth. P362 + P364: Take off contaminated clothing and wash it before reuse. P370 + P378: In case of fire: Use water spray (fog), dry chemical, carbon dioxide or appropriate foam to extinguish.
Storage:	P405: Store locked up.
Disposal:	P501: Dispose of contents/container in accordance with federal, state and local regulations.
OSHA/HCS Status:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Hazards Not Otherwise Classified (HNOC):	None identified.

Section 3. Composition/Information on Ingredients

Substance Type: Mono-constituent.

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Section 3. Composition/Information on Ingredients

Synonyms:	Dodecacarbonyltriiron; tri-Iron dodecacarbonyl; Iron dodecacarbonyl.
Formula:	$C_{12}Fe_3O_{12}$
Molecular Weight:	503.66 g/mol.
EC-No. :	241-668-5

Component Name	%	CAS Number
Triiron dodecacarbonyl	90 – 95	17685-52-8
Methanol	5 - 10	67-56-1

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.

Section 4. First Aid Measures

Description of Necessary First Aid Measures

General Advice:	Move out of dangerous area. If exposed or concerned, get emergency medical help immediately. Show this safety data sheet to the doctor in attendance. If unconscious, place in recovery position and get medical help immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Eye Contact:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses if easy to do. Continue rinsing. Get medical help if irritation develops and persists, if symptoms develop or if you feel unwell.
Skin Contact:	Take off contaminated clothing and shoes immediately. Wash off exposed skin with plenty of water. Get emergency medical help immediately.
Inhalation:	Rescuer should wear a mask or self-contained breathing apparatus if it is suspected that fumes or gases are still present. Remove person to fresh air and keep comfortable for breathing. 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. Do not use the mouth-to-mouth method of resuscitation if victim ingested or inhaled the product; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical devices. Get emergency medical help immediately.
Ingestion:	Rinse mouth, and then give water to drink (two glasses at most). Do NOT induce vomiting. Remove dentures if any. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person.

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Section 4. First Aid Measures

Ingestion (cont.): If person is not breathing, if breathing is irregular or if respiratory arrest occurs, see the "Inhalation" first aid measures noted above. Get emergency medical help immediately.

Most Important Symptoms/Effects, Acute and Delayed Potential Acute Health Effects

Eye Contact: Symptoms may include stinging, tearing, redness, swelling and blurred vision.

Skin Contact: Symptoms may include an itching or burning sensation, reddening, swelling and blistering with tissue necrosis.

Inhalation: Symptoms may include coughing, sneezing with phlegm production, difficulty in breathing, dizziness, tiredness, headache, nausea, vomiting, temporary or permanent loss of vision.

Ingestion: Symptoms may include cramping, localized pain, headache, nausea and vomiting.

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary

Notes to Physician: Treat symptomatically.

Specific Treatments: No specific treatment.

Protection of First Responders: No action taken shall be taken involving any personal risk without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See Toxicological Information (Section 11).

Section 5. Fire Fighting Measures

General Hazards: None identified.

Suitable Extinguishing Media: Use extinguishing measures and media that are appropriate to the local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: For this product no limitations of extinguishing agents are given.

Unusual Fire and Explosion Hazards: Vapors released under fire conditions are toxic. Vapor/air mixtures of this product may become explosive at ambient temperatures. Vapors released under fire conditions are heavier than air and may spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to an ignition source and flashback.

Products of Combustion: Carbon oxides (CO_x) and iron oxide fumes. Irritating/toxic fumes and organic acid vapors may be generated during exposure to elevated temperatures or open flame.

Protection of Firefighters: 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.

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Section 5. Fire Fighting Measures

- Protection of Firefighters (cont.):** Prevent contact with skin or eyes. Prevent the formation and inhalation of dusts, aerosols, vapors and gases.
- Eliminate all local and distant ignition sources. Stop spillage and move unopened containers from fire area if process can be accomplished without risk to firefighters. To reduce the possibility of explosion, use a water spray or fog to reduce direct vapors and to cool unopened containers.
- Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a 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. Eliminate all ignition sources (local and distant, NO SMOKING). Take action to prevent static discharges. Beware of vapors accumulating in low areas to form explosive concentrations. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Prevent contact with skin, eyes or clothing. Prevent the formation and inhalation of dusts, aerosols, vapors and gases. Provide adequate ventilation or wear respiratory protection.
- For Emergency Responders:** If specialized 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:** Prevent spilled material and firefighting runoff from entering the surrounding environment (soil contact, entry into drains, sewers and waterways). Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for Containment

- General:** Eliminate all local and distant ignition sources – NO SMOKING. Stop spillage and move unopened containers from spill area if safe to do so. Use spark/explosion-proof tools and equipment. Prevent the formation and inhalation of dusts, aerosols, vapors and gases. Dispose of collected spillage in accordance with federal, state and local regulations.

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Section 6. Accidental Release Measures

General (cont.):	Contaminated binding material may pose the same hazard as the spilled product.
Small Spill:	Collect spillage with a dry, non-combustible binding material (e.g. dry sand, vermiculite or diatomaceous earth) and place in dry, sealed container for disposal.
Large Spill:	Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with a dry, non-combustible binding material (e.g. dry sand, vermiculite or diatomaceous earth) and place in dry, sealed container for disposal. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and Storage

Precautions:	Product is air/moisture sensitive; handle under an inert gas. Nitrogen with less than 5 ppm each of moisture and oxygen is recommended. Prevent contact with skin, eyes and clothing. Do not ingest. Prevent the formation and inhalation of dusts, aerosols, vapors and gases. Keep away from sources of ignition – NO SMOKING.
Protective Measures:	Protect against electrostatic discharges. Use non-sparking and explosion-proof electrical/ventilating/lighting/handling equipment and tools. Put on appropriate personal protective equipment (see Section 8). Keep in the original container kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
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.
Safe Storage Conditions:	Product is air/moisture sensitive; store under an inert gas. Nitrogen with less than 5 ppm each of moisture and oxygen and a temperature range of 2 – 8 °C is recommended. Keep away from all sources of ignition – NO SMOKING. Store in original container in a cool, dry and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Store locked up.

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Section 8. Exposure Controls/Personal Protection

Introductory Remarks:

These recommendations provide general guidance for handling this product. Because work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and conduct regular repairs. Waste from these procedures should be handled in accordance with Section 13.

Occupational Exposure Limits

Components	CAS-No.	List	Type	Value
Triiron dodecacarbonyl	17685-52-8	ACGIH	TLV	0.1 mg/m ³ Fe TWA
		NIOSH	REL	0.1 mg/m ³ Fe TWA
		OSHA Z1	PEL	0.1 mg/m ³ Fe TWA (Vacated)
Methanol	67-56-1	ACGIH	TLV	200 ppm (260 mg/m ³) TWA 250 ppm (325 mg/m ³) STEL
		CA Title 8	Article 107	200 ppm (260 mg/m ³) TWA 250 ppm (325 mg/m ³) STEL 1,000 ppm (1,300 mg/m ³) C
		NIOSH	REL	200 ppm (260 mg/m ³) TWA 250 ppm (325 mg/m ³) STEL 6000 ppm (7,800 mg/m ³) IDLH
		OSHA Z1	PEL	200 ppm (260 mg/m ³) TWA (Skin) 200 ppm (260 mg/m ³) TWA (Vacated) 250 ppm (325 mg/m ³) STEL (Vacated)

Biological Occupational Exposure Limits

Components	CAS-No.	Basis	Specimen	Value	Frequency
Methanol	67-56-1	ACGIH –BEI	Urine	15 mg/l TWA	End of shift at end of work week.

Engineering Controls:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. Provide an eyewash/shower station.

Environmental Exposure Controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

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Section 8. Exposure Controls/Personal Protection

Environmental Exposure Controls: (cont.)

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. Remove all soiled and contaminated clothing immediately. Prevent contact with eyes and skin. Do not inhale dusts, aerosols, vapors or gases. 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 prevent exposure to dusts, aerosols, vapors or gases. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles, faceshield (8-inch minimum). Refer to 29 CFR 1910.133, ANSI Z87.1, or European Standard EN166.

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

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to prevent skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. For full contact, wear Neoprene or nitrile rubber gloves.

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Section 8. Exposure Controls/Personal Protection

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. When there is a risk of ignition from static electricity discharges, wear anti-static, flame retardant protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Respiratory Protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

Physical State:	Solid (powder or crystals).
Color:	Black.
Odor:	No data available.
Odor Threshold:	No data available.
pH:	No data available.
Melting Point:	165 °C (329 °F) - lit.
Boiling Point:	No data available.
Flash Point:	9.7 °C (49.5 °F) – closed cup.
Flammability:	Category 1 flammable solid.
Auto-ignition Temperature:	No data available.
Density:	1.990 g/cm ³ .
Vapor Pressure:	No data available.
Vapor Density:	No data available.
Water Solubility:	Insoluble.

Section 10. Stability and Reactivity

Reactivity:

Based on available information, no reactivity hazards have been identified for this product.

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Section 10. Stability and Reactivity

Chemical Stability:	Product is stable when stored under a dry, inert atmosphere and away from heat. Nitrogen containing less than 5 ppm each moisture and air and a temperature range of 2 – 8 °C is recommended.
Conditions to Avoid:	Exposure to air/moisture, sources of ignition (heat, flames, sparks, electrostatic discharges) and extremes of temperature.
Incompatible Materials:	Strong oxidizing agents, strong bases, acids and reducing agents.
Hazardous Decomposition Products:	Methanol, carbon oxides (CO _x) and iron oxide fumes. Irritating/toxic fumes and organic acid vapors may be generated during exposure to elevated temperatures or open flame. In the event of a fire: see Section 5.
Possibility of Hazardous Reactions:	Under normal conditions of storage and use noted above, hazardous reactions will not occur. Hazardous reactions or instability may occur under certain conditions of storage or use.

Section 11. Toxicological Information

Information on Toxicological Effects

Acute Toxicity

Component	CAS No	Result	Species	Dose	Exposure
Methanol	67-56-1	LD50 Oral	ATE	100.1 mg/kg	-
		LD50 Dermal	ATE	300.1 mg/kg	-
		LC50 Vapor	ATE	3.1 mg/l	4 h

Irritation/Corrosion

Component	Species	Test	Result	Remarks
Methanol	Rabbit	Skin corrosion	Not corrosive	ECHA
	Rabbit	Eye irritation	No eye irritation	ECHA

Sensitization

Component	Species	Test	Result	Remarks
Methanol	Guinea pig	Sensitization - OECD Test Guideline 406	Negative	-

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Section 11. Toxicological Information

Germ Cell Mutagenicity

Component	Species	Test	Result	Remarks
Methanol	Salmonella typhimurium	Ames test - OECD Test Guideline 471	Negative	-
	Chinese hamster lung cells	OECD Test Guideline 474	Negative	In vitro mammalian cell gene mutation test

Carcinogenicity

Component	CAS No	ACGIH	IARC	NTP	OSHA
Triiron dodecacarbonyl	17685-52-8	Not listed	Not listed	Not listed	Not listed
Methanol	67-56-1	Not listed	Not listed	Not listed	Not listed

Reproductive Toxicity:

No specific data available.

Teratogenicity:

No specific data available.

Specific Target Organ Toxicity: (Single Exposure)

Causes damage to organs (eyes, (CNS), respiratory system)

Specific Target Organ Toxicity: (Repeated Exposure)

Causes damage to organs through prolonged or repeated exposure (liver).

Aspiration Hazard:

Not applicable - solid.

Information on the Likely Routes of Exposure:

Common routes of exposure: inhalation (failure to prevent dust formation), dermal (failure to use skin protection), eye (failure to use safety eyewear). Less common: ingestion (failure to employ recommended hygiene measures (e.g. smoking after handling product without washing hands or using hand protection).

Additional Information:

To the best of our knowledge, the chemical, physical and toxicological properties of this product have not been thoroughly investigated.

Section 12. Ecological Information

Ecotoxicity:

Product may cause long-term adverse effects in the aquatic environment.

Aquatic Toxicity - Acute

Component	CAS No	Test	Species	Dose	Exposure
Methanol	67-56-1	LC50	Lepomis macrochirus (bluegill)	15,400 mg/l	96 h
		EC50	Daphnia magna (water flea)	18,260 mg/l	96 h
		ErC50	Pseudokirchneriella subcapitata (green algae)	22,000 mg/l	96 h

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Section 12. Ecological Information

Aquatic Toxicity - Chronic

Component	CAS No	Test	Species	Dose	Exposure
Methanol	67-56-1	NOEC	Oryzias latipes (Orange-red killifish)	7,900 mg/l	200 h

Persistence and Degradability

Biodegradability:

No specific data available.

Bioaccumulative Potential:

No specific data available.

Persistence:

Based on the product's insolubility in water, there is a high probability of the product persisting in the environment.

Mobility in Soil:

The probability of the product being mobile in the environment is low based its insolubility in water. Methanol log Pow: -0.74.

Results of PBT and vPvB Assessment:

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

Endocrine Disrupting Properties:

No specific data available.

Other Adverse Effects:

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

Section 13. Disposal Considerations

Waste Treatment Methods

Product:

Dispose of in accordance with local, state, and federal regulations. Refer to 40 CFR 260-299 for complete waste disposal regulations. Consult your local, state, or federal agency before disposing of any chemicals.

Contaminated Packaging:

Empty containers retain product residue (dusts, aerosols, vapors, gases) and can be dangerous. Dispose of as unused product. DO NOT EXPOSE OPENED/EMPTY CONTAINERS TO AIR, HEAT, FLAME, SPARKS, STATIC DISCHARGES, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

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Section 14. Transport Information

	DOT	IMDG	IATA
UN Number	UN3178	UN3178	UN3178
UN Proper Shipping Name	Flammable solid, inorganic, n.o.s. (Triiron dodecacarbonyl)	FLAMMABLE SOLID, INORGANIC, N.O.S. (Triiron dodecacarbonyl)	Flammable solid, inorganic, n.o.s. (Triiron dodecacarbonyl)
Transport Hazard Classes	4.1	4.1	4.1
Packing Group	II	II	II
Environmental Hazards	-	-	-
Additional Information	-	EMS-No: F-A, S-I	-

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.

Section 15. Regulatory Information

Toxic Substance Control Act (TSCA)

Component	CAS No	TSCA	TSCA Inventory notification – Active-Inactive	TSCA – EPA Regulatory Flags
Triiron dodecacarbonyl	17685-52-8	-	-	-
Methanol	67-56-1	X	Active	-

"X" – Listed.

This product contains substances that are not listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory). Use of this product is restricted to research and development only. This product must be used under the supervision of a technically qualified individual as defined by the TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes.

This product as supplied is not subject to the TSCA Significant New Use Rule.

This product as supplied is not subject to TSCA 12(b) export notification requirements.

SARA 302 Components

This product does not contain any components which are subject to the reporting requirements of SARA Title III, Section 302 EHS TPO.

SARA 304 Components

This product does not contain any components which are subject to the reporting requirements of SARA Title III, Section 304 RQ.

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Section 15. Regulatory Information

SARA 311/312 Hazards

Fire Hazard (Flammable solid); Acute Health Hazard (Acute toxicity (Oral, dermal, inhalation); Specific Target Organ Toxicity (STOT), Single Exposure: organ damage; Specific Target Organ Toxicity (STOT), Repeated Exposure: organ damage)).

SARA 313 Components

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS No.	Weight (%)	SARA 313 Threshold Values by Weight (%)	SARA 313 Reporting Thresholds
Methanol	67-56-1	5 – 10	1.0	-

Clean Water Act

Not applicable.

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Methanol	X	-	-

X – Listed.

CERCLA Reportable Quantity

This product, as supplied, contains one or more substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Component	Hazardous Substances RQ	CERCLA Extremely Hazardous Substances RQ	SARA RQ
Methanol	5000 lb.	-	5,000 lb. 2,270 kg.

US Department of Homeland Security (DHS)

This product does not contain any DHS chemicals.

US Department of Transportation (DOT)

Component	Reportable Quantity	DOT Marine Pollutant	DOT Severe Marine Pollutant
Methanol	Yes	No	No

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Section 15. Regulatory Information

US State Right-to-Know Listings

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Triiron dodecacarbonyl	-	-	-	-	-
Methanol	X	X	X	X	X

"X" – Listed.

US State Chemicals of High Concern Listings

Component	Maine	Vermont	Washington
Methanol	-	-	-

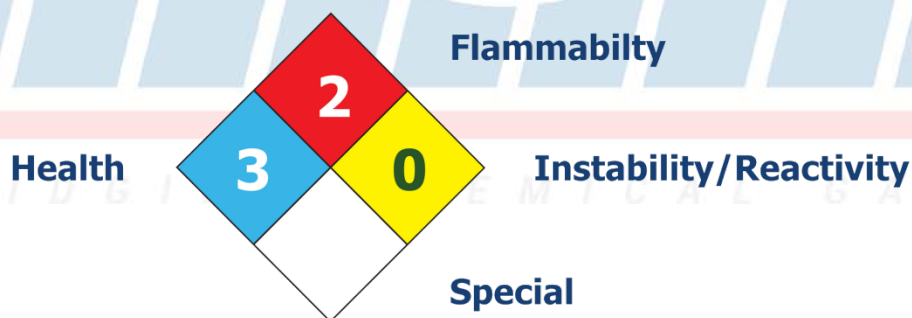
"X" – Listed.

California Proposition 65 Components

Component	CAS No.	California Prop. 65	Prop. 65 NSRL	Category
Methanol	67-56-1	Developmental	-	Developmental

Section 16. Other Information

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



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Section 16. Other Information

HMIS Rating

HEALTH	3
FLAMMABILITY	2
PHYSICAL HAZARD	0

History

Date of Issue/Date of Revision: 3/26/2026.

Date of Previous Issue: None.

References: None available.

Abbreviations and Acronyms

ACGIH	: American Conference of Governmental Industrial Hygienists.
AIHA	: American Industrial Hygiene Association.
ATE	: Acute Toxicity Estimate (per Chapter 3.1 of GHS 10 standard).
BEI	: Biological Exposure Indices (ACGIH).
CAS	: Chemical Abstracts Service (division of the American Chemical Society).
CLP	: Classification, Labeling and Packaging (European Union (EU)).
CNS	: Central Nervous System.
DOT	: US Department of Transportation.
EC-No.	: The EC Inventory (EINECS, ELINCS and the NLP-list is the source of the seven digit EC number, an identifier of substances commercially available with the EU (European Union)).
EINECS	: European Inventory of Existing Commercial Chemical Substances.
EHS	: Extremely Hazardous Substance.
ELINCS	: European List of Notified Chemical Substances.
GHS	: Globally Harmonized System of Classification and Labeling of Chemicals.
HAP	: Hazardous Air Pollutants (Clean Air Act).
HMIS	: Hazardous Materials Identification System.
HNOC	: Hazards Not Otherwise Classified.
IARC	: International Agency for Research on Cancer.
IATA	: International Air Transport Association.
IATA-DGR	: Dangerous Goods Regulations by the "International Air Transport Association" (IATA).
IDLH	: Immediately Dangerous to Life or Health (US National Institute for Occupation Health and Safety (NIOSH)).
IMDG	: International Maritime Code for Dangerous Goods.
IP	: Intraperitoneal.
IV	: Intravenous.
NFPA	: National Fire Protection Association.
NIOSH	: National Institute of Occupational Safety and Health.
NSRL	: No Significant Risk Levels.
NTP	: National Toxicology Program.
ODS	: Ozone Depleting Substances (US Clean Air Act).
OECD	: Organization for Economic Co-Operation and Development.

Triiron dodecacarbonyl Safety Data Sheet

Section 16. Other Information

Abbreviations and Acronyms (cont.)

OEL	: Occupational Exposure Limit.
OSHA	: Occupational Safety and Health Administration.
PBT	: Persistent Bioaccumulative and Toxic.
PEL	: Permissible Exposure Limits.
REL	: Recommended Exposure Limits.
RQ	: Reportable Quantity.
SARA	: Superfund Amendments and Reauthorization Act.
STEL (ST)	: Short Term Exposure Limit (ACGIH/NIOSH)
STOT	: Specific Target Organ Toxicity.
TLV	: Threshold Limit Values (ACGIH).
TPQ	: Threshold Planning Quantity.
TWA	: Time Weighted Average.
VOC	: Volatile Organic Compound.
vPvB	: Very Persistent and Very Bioaccumulative.
WEEL	: Workplace Environmental Exposure Level (AIHA).

Disclaimer

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BRIDGING CHEMICAL GAPS