

SAFETY DATA SHEET



Issued Date: June 1, 2019

Revision Date: June 1, 2019

SECTION I PRODUCT AND COMPANY IDENTIFICATION

Product Identifiers

Product Name: Yates Motloid "20K" Gold Solution
Product Code: 42971
Synonyms: Orosene

Details of the Supplier of the Safety Data Sheet

Supplier Name:

Yates Motloid

Supplier Address

300 N. Oakley Blvd.
Chicago, IL 60612
Website: www.yates-motloid.com
E-mail: sales@yates-motloid.com

Emergency Telephone Numbers

Company Phone Number: (312) 226-2473 (During Business Hours, 8:00am - 4:00pm CST)
Emergency Telephone: INFOTRAC: 1-800-535-5053 (Outside U.S. 1-352-323-3500)

SECTION II HAZARDS IDENTIFICATION

Signal Word:

DANGER

Pictograms:



Classification:

Skin Corrosion/Irritation, Category 1B
C04 Acute Toxicity- Oral, Category 4
Eye Damage/Irritation, Category 1
Carcinogenicity, Category 2
Acute Aquatic Toxicity, Category 1
Chronic Aquatic Toxicity, Category 1

Hazard Statement(s):

Causes severe skin burns and eye damage
H302 Harmful if swallowed
Suspected of causing cancer
Very toxic to aquatic life with long lasting effects

Hazards not otherwise classified:

None

Precautionary statement(s):

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wash hands thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
Do not breathe dust, fume, gas, mist, vapors, or spray.
Wear protective gloves, clothing, and eye and face protection.
If swallowed: Call a poison control center or doctor/physician if you feel unwell. Rinse mouth, do not swallow.

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If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

Avoid release to the environment.

Wash contaminated clothing before reuse.

Collect spillage.

Dispose of contents and container in accordance with local, state, and federal regulations.

SECTION III COMPOSITION ON INGREDIENTS

Chemical Name	Cas No.	EINECS Number	Concentration
Potassium aurocyanide	13967-50-5	237-748-4	1.1%
Cobalt ethylenediamine	14931-83-0	239-001-8	0.9%

*The specific chemical identities of the ingredients of this mixture labeled as "Trade Secret" are considered to be proprietary and are withheld in accordance with the provisions of 29CFR1910.1200 Sect. (i) Trade Secrets.

SECTION IV FIRST AID MEASURES

Inhalation:

Have someone contact a physician or poison control center immediately. If conscious but symptoms (nausea, difficult breathing, dizziness, etc.) are evident, first responders may give oxygen. If consciousness is impaired or patient is unconscious, oxygen and amyl nitrite should be administered by trained qualified medical squads. Amyl nitrite is given by breaking an ampoule in a gauze pad and inserting into the lip of the oxygen resuscitator mask for 15 seconds, and then taking it away for 15 seconds. Repeat this 5 or 6 times. If necessary, use a fresh ampoule every 3 minutes until the patient regains consciousness (usually 1-4 ampoules) Administer oxygen continuously. Guard against the ampoule entering the patient's mouth. Move the patient to an uncontaminated area. Keep the patient warm and calm.

Eye Contact:

Have someone contact a physician or poison control center immediately. Immediately flush eyes with copious amounts of water for up to 5 minutes while holding the eyelids apart. Eye contact will require further evaluation and possible treatment. Continue rinsing the eyes during transport to the hospital.

Skin Contact:

Have someone contact a physician or poison control center immediately. Immediately flush with large quantities of water for up to 5 minutes after contact and completely remove and contaminated clothing including shoes and boots. Flushing with water for up to 5 minutes is generally sufficient to effectively remove cyanide from the patient's skin. Rescue workers should protect themselves against exposure.

Ingestion:

Have someone call a physician or poison control center immediately. If conscious but symptoms (nausea, difficulty breathing, dizziness, etc.) are evident, first responders may give oxygen. If consciousness is impaired, administer oxygen and amyl nitrite as directed under inhalation section. Never give anything by mouth to an unconscious person. Do not induce vomiting as this could interfere with resuscitator use. If the patient is conscious, trained, qualified, medical squads may give activated charcoal slurry. (50 grams of activated carbon slurried in 400 ml of water). Give 5ml/1kg. of wt-about 350 ml for an average

Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see Section 2) and/or section 11. Inhalation of high concentrations of this material, as could occur in enclosed spaces or improper use, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material has an aspiration hazard. Any potential danger from aspiration must be weighed against possible oral toxicity when determining whether to induce vomiting. Consider activated charcoal and/or gastric lavage.

SECTION V FIRE-FIGHTING MEASURE

Suitable Extinguishing Media:

Use media appropriate for surrounding fire such as foam, extinguishing powder, carbon dioxide or water spray. In case of fire, cool endangered containers with water spray.

Unsuitable extinguishing media:

High pressure water jet

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Specific hazards in case of fire:

May release toxic hydrogen cyanide fumes upon heating to dryness

Special protective equipment and precaution for fire fighters:

For fires in enclosed areas, wear self-contained breathing apparatus and full protective gear. Do not inhale combustion gases.

SECTION VI ACCIDENTAL RELEASE MEASURES

Personal precaution, protective equipment and emergency procedures:

Wear appropriate skin, eye, and respiratory protection. Do not eat, drink, or smoke while cleaning up. Ensure adequate ventilation.

Methods and materials for containment and cleaning up:

Wear appropriate personal protective gear including eye, skin, and respiratory protection. Contain spilled material and collect for gold recovery by absorption or other suitable method. Flush spill area with water. Do not allow this material or its rinsings to enter storm or sanitary sewers or other waterways.

Environmental precautions:

Prevent spills and rinsings from entering storm or sanitary sewers or other waterways and contact with soil.

SECTION VII HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with eyes.
Avoid prolonged repeated skin contact and breathing mists or vapors.
Use in well-ventilated area.
Do not empty waste into sanitary drains.

Storage Requirements

Store in cool dry area.
Use with adequate ventilation.
Keep container tightly closed when not in use.
Store only in the original container.

SECTION VIII EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

Ingredient	ACGIH TLV	OSHA PEL	Other Limits
Potassium aurocyanide	5 mg/m ³ (CN) STEL/C	5 mg/m ³ (CN)	5 mg/m ³ (CN) NIOSH REL
Cobalt ethylenediamine tetraacetate	0.02 mg/m ³ (Co) TWA	0.01 mg/m ³ (Co)	0.05 mg/m ³ (Co) NIOSH REL

Appropriate engineering controls:

Use in well-ventilated area with local exhaust.

Respiratory Protection:

Wear appropriate, approved respirator when ventilation is inadequate to meet exposure limits.

Eye Protection:

Chemical splash goggles or safety glasses with side shields must be worn.

Skin Protection:

Wear rubber or neoprene gloves. Wear rubber apron and long sleeves to prevent skin contact. Wash hands thoroughly with soap and water after handling and before eating or smoking.

SECTION IX PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Odor:	Slight cyanide
Color:	Clear, purple	pH:	4.0-5.0
Odor Threshold:	Not available	Solubility	Completely soluble in water at 20 °C
Rel. Density:	(H ₂ O = 1) @ 25 °C: 1.12+/-0.05	Freezing/Melting Pt:	Not determined
Viscosity:	Similar to water	Flash Point:	Not applicable

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Boiling Point: 100 °C (212 °F)

Vapor Density: Not determined

Flammability: (solid, gas): Not applicable

Auto-ignition Temp: Not determined

Partition Coefficient: (Octanol/Water) Not determined

Up/Lower Explosion Limits: Non-explosive

Vapor Pressure: Not determined

Decomposition temp: Not available

Evap. Rate: Not available

SECTION X STABILITY AND REACTIVITY

Reactivity:	Stable, non-reactive when stored and used as recommended.
Chemical Stability:	No decomposition if used according to specifications.
Possible hazardous reactions:	None are known.
Conditions to avoid:	Avoid contact with incompatible materials.
Incompatible materials:	Acids and oxidizers
Hazardous decomposition products:	May release toxic hydrogen cyanide fumes upon heating to dryness

SECTION XI TOXICOLOGICAL INFORMATION

Routes of Exposure and Symptoms:

Inhalation:

May cause weakness, dizziness, headache, vomiting, unconsciousness, and death.

Ingestion:

Very poisonous. Ingestions may cause death or permanent injury from small quantities. Ingestions may cause an increase in the depth and rate of respiration. Cardiac irregularities often occur. Death is due to respiratory arrest of a central origin. Signs are blue lips, lowered blood pressure, unconsciousness, and convulsions. Other signs may include salivation, nausea without vomiting, anxiety, confusion, vertigo, giddiness, lower-jaw stiffness, opisthotonos, paralysis, coma, and bradycardia.

Skin Contact:

May cause "cyanide rash" with itching with macular, papular, and vesicular eruptions. There is often secondary infection.

Eye Contact:

Causes severe irritation.

Acute and Chronic Effects from Short-and-Long-term Exposure:

Acute Oral Toxicity:

LD50: 29 mg/kg (rat, potassium, aurocyanide)

Acute Dermal Toxicity:

No application information available

Acute Inhalation Toxicity:

No application information available.

Acute Eye Irritation:

Known to be an eye irritant.

Dermal Irritation:

Known to be a skin irritant.

Carcinogen Listings:

IARC: Yes (Group 2B, Cobalt compounds)

NTP: No

OSHA: No

Reproductive Effects:

No applicable information available

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Target Organ Effects:

No application information available.

SECTION XII ECOLOGICAL INFORMATION

Aquatic Toxicity: There is no data reported for this material; however, this product is harmful to aquatic life.

Persistence and Degradability: There is no data reported for this material; however, this product is harmful to aquatic life.

Bio-Accumulative Potential: There is no evidence to suggest bioaccumulation will occur.

Mobility in Soil: Accidental spillage may lead to penetration in the soil and groundwater. Improper handling and disposal of this material may cause environmental damage.

SECTION XIII DISPOSAL CONSIDERATIONS

Waste Disposal: Disposal of this material is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

SECTION XIV TRANSPORT INFORMATION

Classification for shipment by road or rail, sea (IMDG) and air (IATA/ICAO):

UN Proper Shipping Name: Toxic Liquid, Inorganic, N.O.S. (Potassium Metallic Cyanide Mixture)

UN Number: UN3287

Transport Hazard Class: 6.1

Packing Group: II

Marine Pollutant: Yes (Cyanide mixtures)

SECTION XV REGULATORY INFORMATION

Inventory Status:

All components are on TSCA, EINECS/ELINCS, AICS, and DSL.

US Regulations:

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:

SARA (311/312) Hazard Categories:

NONE IMMEDIATE DELAYED FIRE REACTIVE PRESSURE GENERATING

SARA 313: This product contains the following SARA 312 Release Chemicals:

Chemical Name	Cas No.	Concentration
Potassium aurocyanide	13967-50-5	1.1%
Cobalt ethylenediamine	14931-83-0	0.9%
Tetraacetate		

The following product components are cited on the lists below:

Chemical Name	Cas No.	Concentration
None	None	California Proposition 65 List

SECTION XVI OTHER INFORMATION

VOC (Volatile Organic Compounds): None

HMIS Ratings:

Health: 3

Flammability: 0

Reactivity: 0

Personal Protection: C

Disclaimer:

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The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that we believe to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of our control, Yates Motloid makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.

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