SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS, Australian WorkSafe, Japanese Standard JIS Z 7250:2000, and EU REACH Regulations

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	**CARTRIDGES - 50 CALIBER SLAP TRACER**
CAS Number:	Mixture – Metal Alloy
Synonyms:	Cartridge .50 SLAP Tracer M962
Product Use:	Loaded Ammunition
U.N. Number:	UN 0339
U.N. Dangerous Goods Class	Explosive, 1.4C
Manufacturer/Responsible Party:	Olin Winchester, LLC
Manufacturers' Address:	600 Powder Mill Road, East Alton, IL 62024 www.winchester.com
Emergency Telephone Number:	US/Canada: 1-800-424-9300 Outside US/Canada: 703-527-3887
SDS Control Group:	618-258-3507 (Technical Information Only)

Olin SDS No.: 00057.0001 **Issue Date:** 6/1/15

Revision Date: 01/01/2026

Revision No.: 10

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: EXPLOSIVE. KEEP AWAY FROM HEAT. DO NOT SUBJECT TO MECHANICAL SHOCK. PARTICLES FROM FIRING MAY BE HARMFUL IF INHALED. DO NOT TAKE INTERNALLY.

US DOT SYMBOLS

CANADA (WHMIS) SYMBOLS

This Product is not subject to WHMIS

Class 6 Explosive

GHS HAZARD SYMBOLS

GHS Classifications:
Carcinogenicity Category 1A
Reproductive Toxicity Category 1A
Explosive Division 1.4 STOT RE Category 1
Aquatic Environment, Chronic II

Signal Word:
Danger

Hazard Statements :
H204: Fire or projection hazard
H350: May cause cancer
H360: May damage fertility or the unborn child
H362: May cause harm to breast-fed children
H372: Causes damage to nervous system, kidney, and hematopoietic system through prolonged or repeated exposure
H411: Toxic to aquatic life with long lasting effects

Target organs:
Nervous, renal and hematopoietic systems

Precautionary Statements:
P102: Keep out of reach of children
P210: Keep away from heat/sparks/open flame/hot surfaces
P250: Do not subject to shock/friction
P260: Do not breathe dust/fume/gas/mist/vapors/spray
P264: Wash hands thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in a well-ventilated area
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection

GHS Pictograms:
Explosive; Pictogram: exploding bomb
Specific Target Organ Toxicity; Pictogram Code: GHS08
Environment; Pictogram Code: GHS09

EU Classifications:
Hazard Symbols: E, T, N
Risk Phrases:
R2: Risk of explosion by shock, friction, fire or other sources of ignition
R45 (Category 1): May cause cancer
R48: Danger of serious damage to health by prolonged exposure
R60/61 (Category 1): May impair fertility or cause harm to the unborn child
R63: Possible risk of harm to the unborn child
R64: May cause harm to breast-fed children
R51/53: Toxic to aquatic organisms and many cause long-term adverse effects in the aquatic environment

Safety Phrases

S2: Keep out of reach of children
S15: Keep away from heat
S20/21: When using do not eat, drink or smoke
S22: Do not breathe dust
S39: Wear eye/face protection
S51: Use only in well-ventilated areas
S61: Avoid release to the environment

Health Hazards or Risks From Exposure

This product is composed of a finished metal alloy cartridge which contains the various components completely sealed within. Therefore, under normal handling of this product, no exposure to any harmful materials will occur. When the ammunition is fired, a small amount of particles may be generated which may be slightly irritating to the eyes and the respiratory tract. The particles may contain trace amounts of these harmful substances:

Lead: Ingestion of large amounts of lead can cause abdominal pain, constipation, cramps, nausea and/or vomiting. Chronic exposure to lead can cause kidney damage, anemia, reproductive effects, developmental effects and permanent nervous system damage in humans including changes in cognitive function. Occupational exposure to lead is associated with lung and stomach cancer. Lead is classified as a probable human carcinogen.
Nitroglycerin: Will produce dilation of blood vessels and drop in blood pressure which may affect the heart. It has also been shown to cause methemoglobinemia (cyanosis).
Nickel: Repeated exposure may cause an allergic skin reaction consisting of itching, redness, swelling, and rash or urticaria (hives) in sensitized individuals. Epidemiological studies in humans have shown an association between lung and nasal cancers and prolonged occupational exposures to high concentrations of nickel.
Copper: Inhalation of high concentrations of metallic copper dusts or fumes may cause nasal irritation and/or nausea, vomiting and stomach pain.
Dibutyl phthalate: May cause harm to the unborn child based on animal experiments. Possible risk of impaired fertility.

It is unlikely that the amount of particles that someone would be exposed to from firing a loaded round would be sufficient to cause any of these effects.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% By Weight	CAS Number	EINECS/ ELINCS #
Copper	30 – 48	7440-50-8	231-159-6
Tungsten	15 – 25	7440-33-7	231-143-9
Zinc	10 – 21	7440-66-6	231-175-3
Nitrocellulose	10 – 20	9004-70-0	Polymer
Nitroglycerin	1 – 5	55-63-0	200-240-8
Poly (2,2'-bis(3,4-dicarboxyphenoxy) -phenylpropane-2-phenylene bisimide	1 – 5	61128-46-9	Polymer
Dibutyl phthalate	0.5 – 2.5	84-74-2	201-55-74
Nickel	0.5 – 1.5	7440-02-0	231-111-4
Aluminum	0.15 – 1.15	7429-90-5	231-072-3
Lead styphnate	0.1 - 1	15245-44-0	239-290-0
Lead	0.1 – 0.25	7439-92-1	231-100-4

4. FIRST AID MEASURES

Eye Contact: Immediately flush out fume or particles with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If eye irritation develops, call a physician at once.
Skin Contact: Wash skin with plenty of soap and water.
Inhalation: If symptoms of lung irritation occur (coughing, wheezing or breathing difficulty), remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep affected person warm and at rest. Get medical attention.
Ingestion: If ingested, immediately call a physician.

Medical Conditions Aggravated By Exposure:
There are no medical conditions known to be aggravated by exposure to this product in its solid form. Exposure to lead can aggravate anemia, cardiovascular and respiratory disease.

Recommendations To Physcians:
Remove from exposure, if possible, and treat symptoms

5. FIRE FIGHTING MEASURES

PROPERTY	*VALUE*	*PROPERTY*	*VALUE*
Explosive	Yes	Flammable	Not applicable
Combustible	Not applicable	Pyrophoric	No
Flash Point (°C):	Not applicable	Burning Rate of Material:	Not applicable
Lower Explosive Limit:	Not applicable	Autoignition Temp.:	No data
Upper Explosive Limit:	Not applicable	Flammability Classification: (defined by 29 CFR 1910.1200)	Explosive

Unusal Fire and Explosion Hazards: Possible projection hazard.

Extinguishing Media: Flood area with water. If no water is available, carbon dioxide, dry chemical or earth may be used.

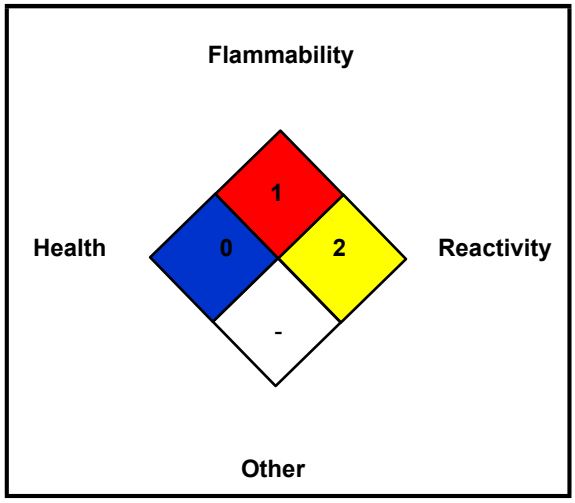
Special Firefighting Procedures: Do not fight fire when fire reaches cargo. Cargo may explode.

Firefighters must wear self-contained breathing apparatus (SCBA) and full protective equipment. Structural firefighters' protective clothing will only provide limited protection.

Isolate materials not yet involved in the fire. Move containers from fire area if possible; otherwise, cool with carefully applied water spray.

Prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas, if practical.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HEALTH HAZARD (BLUE)	**0***
FLAMMABILITY HAZARD (RED)	**1**
PHYSICAL HAZARD (YELLOW)	**2**

PROTECTIVE EQUIPMENT			
EYES	PPE CODE	RESPIRATORY	HEARING
	A	See Sect 8	See Sect 8

Hazard Scale: **0** = Minimal **1** = Slight **2** = Moderate **3** = Serious **4** = Severe * = Chronic hazard

6. ACCIDENTAL RELEASE MEASURES

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC AT 800-424-9300.

Spill Response: A spill of this material will normally not require emergency response team capabilities. If, however, a large spill occurs, call 1-888-289-1911 for technical assistance.

Accidental Release Procedures: Spills of this material should be handled carefully. Do not subject materials to mechanical shock. Collect material and place in a designated, labeled waste container. See Section 13 for waste disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Use appropriate personal protective equipment (see Section 8). Workers should wash hands thoroughly after handling. Eating, drinking and smoking should be prohibited in areas where this material is handled and stored.

Conditions for Safe Storage: Store in accordance with local regulations. Store in original containers in a cool, dry location away from Acids, Class A & B explosives, strong oxidizers, and caustics. Avoid mechanical impact or shock and electrical discharge.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

CAS #	*CHEMICAL NAME*	*ACGIH TLV*	*OSHA PEL*	*INTERNATIONAL OELS*
7440-50-8	Copper	0.2 mg/m^3 (fume), 1 mg/m^3 (dusts and mists)	0.1 mg/m^3 (fume) 1 mg/m^3 (dusts and mists)	Austria, Belgium, Canada: 0.2 mg/m^3 (fumes), 1 mg/m^3 (dusts) Denmark: 1.0 mg/m^3 (dust and powder) Germany (MAK): 0.1 mg/m^3 (fume), 1 mg/m^3 (dusts and mists)
7440-33-7	Tungsten	5 mg/m^3 TWA, 10 mg/m^3 STEL	None established	Denmark, Netherlands, Norway, Poland, Sweden, UK : 5 mg/m^3
7440-66-6	Zinc	None established	None established	None established
9004-70-0	Nitrocellulose	None established	None established	None established
55-63-0	Nitroglycerin	0.05 ppm (0.46 mg/m^3) Skin	Ceiling – 0.2 ppm (2 mg/m^3)	Denmark: 0.02 ppm (0.2 mg/m^3) Norway, Sweden: 0.03 ppm (0.3 mg/m^3) Austria, Belgium, Germany, The Netherlands, Poland, Switzerland: 0.05 ppm (0.47 mg/m^3), skin Finland, France: 0.1 ppm (0.9 mg/m^3), skin U.K.: 0.2 ppm (2 mg/m^3), skin
61128-46-9	Poly (2,2'-bis(3,4-dicarboxyphenoxy)-phenylpropane-2-phenylene bisimide	None established	None established	None established
84-74-2	Dibutyl phthalate	5 mg/m^3	5 mg/m^3	Belgium, Denmark, France, Netherlands, Switzerland, U.K.: 5 mg/m^3 Sweden: 3 mg/m^3
7440-02-0	Nickel	1.5 mg/m^3 (inhalable)	1 mg/m^3	Germany, MAK = 1 mg/m^3 Canada (B.C.), Czechoslovakia, Denmark, Norway – 0.05 mg/m^3, K1, sensitizer Poland = 0.25 mg/m^3 Ireland, Sweden, Switzerland, U.K. = 0.5 mg/m^3 Belgium, Canada (Alberta & others), Finland, Japan, Mexico, Netherlands – 1 mg/m^3 Portugal = 1.5 mg/m^3
7429-90-5	Aluminum	1 mg/m^3 (resp. fraction)	15 mg/m^3 (total dust); 5 mg/m^3 (resp. fraction)	Belgium, France, Hungary , Sweden– 5 mg/m^3 (resp. dust) Germany, Switzerland – 6 mg/m^3 Denmark, Netherlands, U.K. – 10 mg/m^3
55-63-0	Lead styphnate	None established	None established	None established
7439-92-1	Lead	0.05 mg/m^3	0.05 mg/m^3	Austria, Denmark, Germany, Sweden, Switzerland: 0.1 mg/m^3 Norway, Poland: 0.05 mg/m^3

Engineering Controls: Local exhaust ventilation is recommended if significant dusting occurs or fumes are generated. Otherwise, use general exhaust ventilation.

Respiratory Protection: Not normally needed. Maintain airborne contaminant concentrations below guidelines listed above. Use an appropriate approved air-purifying respirator equipped with HEPA cartridges/canisters where there is the potential for exceeding established occupational exposure limits.

Eye/Face Protection: Use safety glasses.

Hand Protection: Not normally needed

Skin Protection: Not normally needed.

Hearing Protection: Not normally needed. During firing use hearing protection.

General Hygiene: Do not eat, drink, or smoke while using this product. Wash hands thoroughly after use.

9. PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	*VALUE*	*PROPERTY*	*VALUE*
Appearance:	Finished cartridge	*Physical State:*	Solid
Odor:	None	*Odor Threshold:*	None
Boiling Point (°F):	Not applicable	*Melting point:*	Not applicable
Vapor Pressure (mm Hg):	Not applicable	*Freezing point:*	Not applicable
Vapor Density(air = 1):	Not applicable	*Bulk Density*	Not applicable
Specific gravity (g/cc):	Not applicable	*Viscosity (cps):*	Not applicable
pH:	Not applicable	*Decomposition Temperature:*	Not applicable
Solubility in Water (20 °C):	Insoluble	*Evaporation Rate:*	Not applicable
Volatiles, Percent by volume:	Not applicable	*Octanol/water partition coefficient:*	Not applicable

10. STABILITY AND REACTIVITY

Stability:	Stable under normal temperatures and pressure.
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur
Incompatible Materials:	Acids, Class A & B explosives, strong oxidizers, and caustics
Hazardous Decomposition Products:	Nitrogen oxides, carbon monoxide, lead oxides, carbon dioxide, lead dust/fume
Conditions to Avoid:	Contact with incompatible materials. Physical damage to containers; cartridges may detonate if case is punctured.

11. TOXICOLOGICAL INFORMATION

Potential Routes of Entry: Inhalation, Skin, and by Ingestion.

The physical nature of this product makes absorption from any route unlikely. A small amount of inhalable particles may be created when cartridge is fired.

Effects Of Acute Exposure:

PRODUCT		SELECTED COMPONENTS							
		Lead	Lead Styphnate	Copper	Nitro-glycerin	Nickel	Aluminum	Dibutyl Phthalate	Tungsten
Inhalation LC_{50}	Particles generated from firing may be slightly toxic	No data	No data	No data	No data	>12 mg/mg lt (rat)	>1000 mg/m3 (rat)	4250 mg/m3 (rat)	>5 mg/l (rat)
Skin Contact LD_{50}	Skin absorption unlikely	No data	No data	375 mg/kg, sc (rabbit)	> 280 mg/kg (rabbit)	>7.5 g/kg Sc (rabbit)	No data	>20 ml/kg (rabbit)	>2g/kg (rat)
Ingestion LD_{50}	Ingestion unlikely	763 mg/kg (rat)	No data	3.5 mg/kg, ip (mouse)	105 mg/kg (rat)	> 5 g/kg (rat)	No data	8 g/kg (rat)	>2 g/kg (rat)
Irritation	Particles generated from firing may be irritating to the eyes	Not irritating	No data	Respir-atory irritant	Mild irritant Eye & skin	Respir-atory irritant	Mild eye & skin irritant	No data	Mild eye & skin irritant
Sensitization	Sensitization to this Product has not been reported	No data	No data	No data	No data	No data	No data	No data	No data

Other Adverse Effects:

Target Organ Toxicity:	No reported target organ toxicity from this product. Lead has caused nervous system, kidney and hematopoietic system damage in humans and laboratory animals.

Reproductive Toxicity:	This product is not known or reported to cause reproductive effects. Lead has been shown to reduce male reproductive function in humans and laboratory animals. Dibutyl phthalate has caused adverse reproductive effects in animal studies. Exposure of male rats to high concentrations of nickel caused testicular degeneration.
Teratogenicity (Birth Defects):	This product is not known or reported to cause developmental toxicity. Lead has been shown to affect fetal development; changes including birth defects have been reported. Dibutyl phthalate has also been reported to cause adverse developmental effects in animal studies.
Mutagenicity:	This product is not known or reported to be mutagenic. Lead has been shown to be mutagenic in several *in vitro* assays. Nickel has been shown to be mutagenic in *in vitro* studies.
Carcinogenicity:	IARC and US EPA list lead and lead compounds as probable human carcinogens (Group 2A) based on sufficient evidence from animal studies and limited evidence from human studies (epidemiology). NTP classifies lead and lead compounds as reasonably anticipated to be human carcinogens.

12. ECOLOGICAL INFORMATION

Environmental Effects:

PRODUCT: Product has not been tested for environmental properties. Lead shot has been shown to be toxic to aquatic species.

COMPONENTS:

Copper:	Copper concentrations from 0.1 to 1.0 mg/l have been found to be not toxic for most fish. However, concentrations of 0.015 to 3.0 mg/l have been reported as toxic, particularly in soft water to many kinds of fish, crustacea, mollusks, insects, and plankton.
Lead:	Bluegill sunfish, 48 hr. LC_{50} = 2-5 mg/l. Lead is toxic to waterfowl.
Nickel:	Freshwater algae (4 species), 72 hr. EC_{50} = 0.1 mg/L; *Daphnia* magna, 96 hr LC_{50} = 0. 51 mg/L; Rainbow trout, 96 hr LC_{50} =31.7 mg/L; Fathead minnow, 96 hr LC_{50} = 3.1 mg/L
Nitroglycerin:	Bluegill sunfish, 96 hour LC_{50} = 1.228 mg/l (static)
Nitrocellulose:	LC_{50} > 1000 mg/l to fish, invertebrates, and algae.
Zinc:	The following concentrations of zinc have been reported as lethal to fish: 0.13 mg/l, for 12 – 24 hours to Rainbow trout fingerlings; 1.9 – 3.6 mg/l, 6 hr TLM (soft water, 30°C) to Bluegill Sunfish; 4 mg/l, 3 days (hard water) to Rainbow trout; 1 mg/l, 24 hours (soft water) to Sticklebacks. The presence of copper appears to have a synergistic effect on the toxicity of zinc towards fish.

Environmental Fate:

MOBILITY:	Dissolved lead from degraded bullets may migrate through soil.
PERSISTANCE/DEGRADABILITY:	Not biodegradable. Bullets may fragment and decompose in soil leading to accumulation of lead.
BIOACCUMULATION:	No data

13. DISPOSAL CONSIDERATIONS

Care must be taken to prevent environmental contamination from the use of this material. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding the treatment, storage and disposal for hazardous and nonhazardous wastes.

14. TRANSPORT INFORMATION

Regulatory Information for US DOT, IATA, IMO, and ADR:

Proper Shipping Name:	Cartridges for weapons, inert projectile
Hazard Class Number and Description:	Explosive 1.4C

UN Identification Number: UN 0339

Packing Group: NA

DOT Label(s) Required: Explosive 1.4

Marine Pollutant: None of the ingredients are classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)

Additional Information:

North American Emergency Response Guidebook Number (2004): 114

U.S. DEPARTMENT OF TRANSPORTATION SHIPPING REGULATIONS: This product is classified as dangerous goods under 49 CFR 172.101. Note: May be reclassified domestically as an ORM-D if packaged as a consumer commodity per 49 CFR 173.

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This product is classified as Dangerous Goods.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA): This product is classified as Dangerous Goods.

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION: This product is classified as Dangerous Goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is classified by the United Nations Economic Commission for Europe to be dangerous goods.

15. REGULATORY INFORMATION

US FEDERAL

TSCA	The components of this product are listed on the Toxic Substance Control Act inventory.				
CERCLA:	Copper, R.Q.* = 5000 lbs.; Zinc, R.Q. = 1000 lbs.; Nickel, R.Q. = 100 lbs.; Lead, R.Q. = 10 lbs.; Nitroglycerin, R.Q. = 10 lbs; Dibutyl phthalate, R.Q. = 10 lbs. (No reporting is required if diameter of the pieces of metal is equal to or exceeds 100 micrometers (0.004 inches)).				
SARA 313:	Aluminum (fume or dust), Copper, Dibutyl phthalate, Lead and Lead compounds, Nickel, Nitroglycerin, and Zinc (fume or dust)				
SARA 311/312:	*Health*:	Acute – No Chronic - No	*Fire:* No	*Reactivity:* Yes	*Release of Pressure*: No
SARA 302 EHS List:	None of the components of this product are listed.				

*RQ = Reportable Quantity

STATE RIGHT-TO-KNOW STATUS

Component	California	New Jersey	Pennsylvania	Massachusetts	Michigan
Copper	Not listed	X	X	X	X
Tungsten	Not listed	Not listed	X	X	Not listed
Zinc	Not listed	X	Not listed	X	X
Nitrocellulose	Not listed	X	X	X	Not listed
Nitroglycerin	Not listed	X	X	X	Not listed
Poly (2,2'-bis(3,4-dicarboxyphenoxy)-phenylpropane-2-phenylene bisimide	Not listed	Not listed	Not listed	Not listed	Not listed
Dibutyl phthalate	Not listed	X	X	X	X
Nickel	X	X	X	X	X
Aluminum	Not listed	X	X	X	Not listed
Lead styphnate	X	Not listed	Not listed	X	Not listed
Lead	X	X	X	X	X

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65)

Warning! This product contains detectable amounts of a chemical known to the State of California to cause cancer and/or birth defects or other reproductive harm.

GHS CLASSIFICATION

Carcinogenicity Category 1A
Reproductive Toxicity Category 1A
Explosive Division 1.4
STOT RE Category 1
Aquatic Environment, Chronic II

EUROPEAN REGULATIONS

All chemical components listed on EINECS except poly (2,2"-bis(3,4-dicarboxyphenoxy) – phenyl propane-2-phenylene bisimide and nitrocellulose (considered polymers)

Hazard Classification

Danger Symbols:	E, T, N
Risk Phrases:	R2, R48, R60, R63, R51/53
Safety Phrases:	S2, S15, S20/21, S22, S39, S51, S61
German WGK Classification:	Not known.

CANADIAN REGULATIONS

DSL/NDSL Inventory:	The components of this product are on the DSL
IDL:	Aluminum, Copper, Dibutyl phthalate, Lead, Nickel
CEPA PRIORITIES LIST:	Dibutyl phthalate
WHMIS:	This product is not subject to WHMIS. It is regulated as a Class 6 Explosive in Canada.

JAPANESE REGULATIONS

Existing National Inventory of Chemical Substances (ENCS): The components of this product are Listed

Japanese Priority Assessment Chemical Substances: None of the components of this product s are listed

OTHER INTERNATIONAL CHEMICAL INVENTORIES

Swiss Giftliste List of Toxic Substances:	All Components Listed
Australian Inventory (AICS):	All Components Listed

16. OTHER INFORMATION

REVISIONS: 10
DATE: 01/02/2026
PREPARED BY: Olin Winchester, LLC
OTHER: Additional information available from: www.winchester.com
NOTICE: THE INFORMATION IN THIS SDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. OLIN BELIEVES THIS INFORMATION TO BE RELIABLE AND CURRENT AS OF THE DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS.