SAFETY DATA SHEET

1. Identification

Product identifier	**AMMO – SHOTSHELL, DOUBLE BASE, no DBP**
Synonyms:	**Fiocchi Exacta, Fiocchi Extrema, Fiocchi Shooting Dynamics**
Product Codes:	**Shotshell Ammunition**
Recommended Use	**Small Arms Ammunition**
Recommended restrictions	**None known.**

Manufacturer/Importer/Supplier/Distributor Information

Company name:	**Fiocchi of America**
Address	**6930 N. Fremont Rd.** **Ozark, MO 65721**
Telephone	**417 725 4118**
Fax	**417 725 1039**
Website	http://**www.fiocchiusa.com**
Emergency phone number	**U.S.A: 800-424-9300** **Canada: 703-741-5000**

2. Hazard(s) Identification

Physical hazards	Explosives	Division 1.4
Health hazards	Acute Toxicity (inhalation)	Category 4
	Skin Sensitization	Category 1A
	Carcinogenicity	Category 2
	Reproductive Toxicity	Category 1A
	Specific Target Organ Toxicity, Repeat Exposure	Category 1
OSHA defined hazards	None known	

Label elements

Hazard symbol

Signal Word	**DANGER**
Hazard Statement	Fire or projection hazard. Suspected of causing cancer. May damage fertility or the unborn child. Causes damage to organs (central nervous system, blood, kidney, reproductive system) through prolonged or repeated exposure.

Precautionary statement

Prevention	Do not handle until all safety precautions have been read and understood. Keep away from heat. No smoking. Do not subject to shock. Wear eye protection. Do not breathe fumes. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
Response	If exposed, concerned or you feel unwell: Call a doctor or get medical attention. In case of fire: Evacuate area. Fight fire with normal precautions from a reasonable distance
Storage	Store in accordance with applicable fire codes. Keep only in original packaging.
Disposal	Dispose of ammunition in accordance with local regulations..

Supplemental information The hazardous components of this product are encased and are not biologically available. Therefore, some health hazards do not apply to the overall product. Decomposition products, including lead, are released during the firing of cartridges. Use only outdoors or in a well-ventilated area.

3. Composition / Information on Ingredients

Chemical Name	CAS Number	%
Lead	7439-92-1	72.9
Iron	1309-37-1	7.38
Nitrocellulose	9004-70-0	5.2
Nitroglycerin	55-63-0	2.2
Copper	7440-50-8	1.54
Rosin	8050-09-7	0.3
Lead Styphnate	15245-44-0	0.12

Composition Comments All concentrations are in percent by weight.

4. First Aid Measures

Inhalation	Remove to fresh air. If symptoms occur, get medical attention.
Skin contact	Wash exposed skin with plenty of soap and water. Get medical attention if irritation or other symptoms occur.
Eye contact	Do not rub eyes. Flush eyes with plenty of water. If eye irritation develops and persists, get medical attention.
Ingestion	Rinse mouth thoroughly with water. If symptoms develop get medical attention.

Most important symptoms/effects, acute and delayed
Fragments from fired ammunition can cause physical injury. When ammunition is fired or otherwise discharged, decomposition products may be absorbed by the digestive system and can result in both acute and chronic overexposure. Symptoms may include gastrointestinal irritation, nausea, vomiting and diarrhea. High concentrations of dust and/or fumes may irritate throat and respiratory system and cause coughing. Symptoms of chronic exposure to lead include anemia, visual and hearing disturbances, headache, memory loss, fatigue, muscle weakness, tremors, and convulsions. Ingestion of ammunition can cause irritation to the digestive system, and possibly other unknown health effects. Nitroglycerin may cause a drop in blood pressure, headache, cyanosis and mental confusion.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically.

General information
In case of accident or if you feel unwell, seek medical advice immediately. Ensure that medical personnel are aware of the material(s) involved.

5. Fire-Fighting Measures

Suitable extinguishing media	Straight water stream; Water fog; Class A foam.
Unsuitable extinguishing media	None.
Specific hazards arising from the chemical	May ignite if heated to 250°F (121°C) causing projection of metal fragments. Mass explosion will not occur. Hazardous chemical and toxic by-products from chemical decomposition may be formed during fire. These products vary depending on fire conditions and other combustibles present during fire. These may include smoke, carbon monoxide, carbon dioxide, oxides of nitrogen and lead fumes. Complete ventilation of structure is recommended.
Personal protective equipment	Self-contained breathing apparatus (SCBA) and full structural protective clothing should be worn for any fire or exposure to heat. This includes, but is not limited to, protective coat, pants, boots, firefighting gloves, SCBA with facepiece and helmet, protective hood and eye protection. (NFPA 1971)
Fire suppression guidance	Perform a risk assessment before engaging in offensive firefighting operations. Unless life safety risk or significant risk of property loss is present, consider taking defensive posture, protecting exposures and maintaining safe distance until material is consumed. For further information see the video “Ammunition and the Fire Fighter” by the Sporting Arms and Ammunition Manufacturers’ Institute (SAAMI): www.youtube.com/watch?v=3SlOXowwC4c.
Specific methods	Evacuate personnel to a safe area according to pre-determined public protection zones. Refer to pre-incident response and structural plans to determine if potential for involvement of other hazardous materials. Direct water streams at product to reduce projectile hazard from exploding cartridges. After the fire is controlled, heated products can still re-ignite and project pieces of metal posing risk to fire-fighters. Full PPE including respiratory protection should be worn during salvage, overhaul and fire investigation. Do not disturb the involved area until the fire is completely extinguished and the product and packaging are allowed to cool down to ambient temperatures.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Eliminate all ignition sources. Wear appropriate personal protective equipment. Damaged ammunition can explode upon contact creating projectiles dangerous to eyes, ears and skin. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
Sweep up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling	Projectiles from fired ammunition can cause physical injury. Do not handle until safety precautions have been read and understood. Do not subject to mechanical shock. Remove product from service if any of the following conditions occur: corrosion, physical damage, exposure to oil or spray lubricants. Provide appropriate exhaust ventilation. Do not breathe decomposition products. Lead containing compounds are released during the firing of cartridges. Care should be taken to minimize the potential exposure to lead. Do not taste or swallow. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage	Store in original container. Keep container tightly closed. Store in a cool, dry, well-ventilated place away from all sources of ignition. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure Controls / Personal Protection

Occupational exposure limits

Chemical Name	CAS Number	ACGIH TLV	OSHA PEL	Other Information
Lead	7439-92-1	0.05 mg/m^3	0.05 mg/m^3	
Iron	1309-37-1	5 mg/m^3 (respirable fraction)	10 mg/m^3 (fume)	
Nitrocellulose	9004-70-0	None established	None established	
Nitroglycerin	55-63-0	0.05 ppm *Skin Designation	0.2 ppm 2.0 mg/m^3 *OSHA limit applies to skin	*Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.
Copper	7440-50-8	0.2 mg/m^3 (fume)	0.1 mg/m^3 (fume) 1 mg/m^3 (dust)	
Rosin	8050-09-7	*None established	*None established	*Exposure by all routes should be carefully controlled to levels as low as possible.
Lead Styphnate	15245-44-0	None established	None established	

Biological limit values
No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	Wear appropriate protective clothing when cleaning equipment.
Hand protection **Other**	Wear protective gloves when cleaning equipment.
Respiratory protection	Wear appropriate respiratory protection when cleaning equipment.
General hygiene Considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and Chemical Properties

Appearance	Brass Plated Head and Plastic Casing of Varying Color
Physical state	Solid.
Form	Casing.
Color	Brass and Varying Plastic Case
Odor	None.

Odor threshold	Not available.
pH	Not applicable.
Melting point/freezing point	Not applicable.
Initial boiling point / boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Fire or projection hazard.
Upper/lower flammability or explosive limits	Not applicable.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	>1
Solubility(ies)	Not applicable.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	250°F / 121°C
Decomposition temperature	Not available.
Viscosity	Not applicable.

10. Stability and Reactivity

Reactivity	May explode with friction, impact, heat, and low level electrical current.
Chemical stability	Risk of explosion by shock, friction, fire or other sources of ignition.
Possibility of hazardous Reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat, sparks, and flames. Avoid contact with incompatible materials.
Incompatible materials	Strong acids, bases, and oxidizers.
Hazardous decomposition Products	Carbon monoxide, carbon dioxide, oxides of nitrogen, lead fumes.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Fumes may irritate throat and respiratory system. Prolonged inhalation may cause chronic effects.
Skin contact	Contact with decomposition products may cause skin irritation.
Eye contact	Contact with decomposition products may cause eye irritation.
Ingestion	Ingestion may cause gastrointestinal irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Projectiles from fired ammunition can cause wounds. When ammunition is fired or otherwise discharged, dust and/or fumes may be absorbed by the digestive system and can result in both acute and chronic overexposure. Symptoms may include gastrointestinal irritation, nausea, vomiting and diarrhea. High concentrations of dust and/or fumes may irritate throat and respiratory system and cause coughing. Symptoms of chronic exposure to lead include anemia, visual and hearing disturbances, headache, memory loss, fatigue, muscle weakness, tremors, and convulsions. Ingestion of ammunition can cause irritation to the digestive system, and possibly other unknown health effects. Nitroglycerin may cause a drop in blood pressure, headache, cyanosis and mental confusion.

Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic under normal conditions of use.

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Nitroglycerin	55-63-0	685 mg/kg (Rat)	>2000 mg/k (Rat)	(ATE) 0.05 mg/l/4h

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation May cause eye irritation.

Respiratory sensitization No data available.

Skin sensitization Not expected to cause skin sensitization under normal conditions of use.

Germ cell mutagenicity This product or any of its ingredients are not known or reported to be mutagenic.

Carcinogenicity The National Toxicology Program (NTP) considers lead compounds reasonably anticipated to be a human carcinogen.

Chemical Name	CAS Number	ACGIH	IARC	NTP
Lead	7439-92-1	Lead and Inorganic Compounds (as PB) – Confirmed animal carcinogen (A3)	Possibly carcinogenic to humans (2B)	Reasonably anticipated to be a human carcinogen
Lead Styphnate	15245-44-0	Not Listed	Lead compounds - Not classifiable (3)	Lead compounds - Reasonably anticipated to be a human carcinogen

Reproductive toxicity May damage fertility or the unborn child.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Causes damage to organs (central nervous system, blood, kidney, reproductive system) through prolonged or repeated exposure.

Aspiration hazard Due to the physical form of the product it is not an aspiration hazard.

Chronic effects Prolonged or repeated exposure to decomposition products may cause chronic effects.

12. Ecological Information

Ecotoxicity Not expected to be hazardous to the aquatic environment in its present form.

Persistence and degradability No data available on product mixture.

Bioaccumulative potential No data available on product mixture.

Mobility in soil No data available on product mixture.

Other adverse effects No other adverse environmental effects known.

13. Disposal Considerations

Disposal instructions
Dispose of in accordance with applicable federal, state, and local regulations. Do not discharge into drains, water courses or onto the ground.

Local disposal regulations
Dispose of in accordance with local regulations.

Waste from residues / unused products
Care must be taken to prevent environmental contamination from the use of this material. The user has the responsibility to dispose of unused material, residues, and containers in compliance with all relevant laws and regulations. Dispose in accordance with all applicable regulations. Do not discharge into drains, water courses or onto the ground.

Contaminated packaging
Dispose of in accordance with federal, state and local regulations.

14. Transport Information

DOT

UN Number:	UN0012
UN Proper Shipping Name:	Cartridges Small Arms
Transport Hazard Class(es):	LQ or 1.4S
Packing Group:	II
Special precautions for user:	This material is a dangerous good for transport. All involved staff must be appropriately trained.

IATA

UN Number:	UN0012
UN Proper Shipping Name:	Cartridges Small Arms
Transport Hazard Class(es):	1.4S
Packing Group:	II
Special precautions for user:	This material is a dangerous good for transport. All involved staff must be appropriately trained.

IMDG

UN Number:	UN0012
UN Proper Shipping Name:	Cartridges Small Amrs
Transport Hazard Class(es):	1.4S
Packing Group:	II
Special precautions for user:	This material is a dangerous good for transport. All involved staff must be appropriately trained.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory Information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA Hazardous Substance List (40 CFR 302.4)
Lead (10 lbs); Copper (5000 lbs); Zinc (1000 lbs); Nitroglycerine (10 lbs)

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories
Immediate Hazard - No
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - Yes
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
Yes

SARA 313 (TRI reporting)
Lead (7439-92-1); Copper (7440-50-8); Zinc (7440-66-6); Nitroglycerin (55-63-0)

US state regulations

US. Massachusetts RTK - Substance List
Lead (7439-92-1); Iron Oxide (1309-37-1); Nitrocellulose (9004-70-0); Nitroglycerin (55-63-0); Copper (7440-50-8); Lead styphnate (15245-44-0)

US. New Jersey Worker and Community Right-to-Know Act
Iron Oxide (1309-37-1); Lead (7439-92-1); Nitrocellulose (9004-70-0); Nitroglycerin (55-63-0); Copper (7440-50-8); Lead styphnate (15245-44-0)

US. Pennsylvania Worker and Community Right-to-Know Law
Iron Oxide (1309-37-1); Lead (7439-92-1); Nitrocellulose (9004-70-0); Nitroglycerin (55-63-0); Copper (7440-50-8)

US. Rhode Island RTK
Lead (7439-92-1); Nitroglycerin (55-63-0); Copper (7440-50-8);

US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This product contains a chemical known to the state of California to cause cancer, birth defects, or other reproductive harm.

Toxic Substance Control Act
Components of this product are listed on the United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory.

16. Other Information, including date of preparation or last revision

Issue date 12/02/2020
Revision date 12/02/2020
Version # 0

Disclaimer
The information in this safety data sheet should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. The information in the sheet was written based on the best knowledge and experience currently available and is believed to be reliable and up to date as of the date of publication, but no warranty is expressed or implied. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.