

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

1 Identification

- **Product identifier**
- **Trade name: Small Arms Ammunition (Non-Tracer rounds)**
- **Recommended use and restriction on use**
- **Recommended use:** Small arms ammunition.
- **Restrictions on use:** Contact manufacturer.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
 HS Munitions Inc. (The Hunting Shack)
 4406 Rathbun Lane
 Stevensville, MT 59870 USA
 Tel 406-777-2106
 mail@thehuntingshack.com.
- **Emergency telephone number:**
 ChemTel Inc.
 (800)255-3924, +1 (813)248-0585



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS01 Exploding bomb

Expl. 1.4 H204 Fire or projection hazard.



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.
 Acute Tox. 3 H311 Toxic in contact with skin.
 Acute Tox. 2 H330 Fatal if inhaled.



GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.
 Carc. 1B H350 May cause cancer. Route of exposure: Inhalative.
 Repr. 1A H360 May damage fertility or the unborn child.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Additional information:**

Health hazards reflect highest concentration of relevant substances present.
 To avoid risks to human health and the environment, comply with the instructions for use.
 There are no other hazards not otherwise classified that have been identified.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 1)

0 percent of the mixture consists of ingredient(s) of unknown toxicity.

• **Label elements**

• **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

• **Hazard pictograms**

Explosive symbol (GHS01) is not required for 1.4S explosives under OSHA rules.



GHS01 GHS06 GHS07 GHS08

• **Signal word** Danger

• **Hazard-determining components of labeling:**

glycerol trinitrate / nitroglycerin

2,4-dinitrotoluene

dibutyl phthalate

Rosin

dihydroxy[stypnato(2-)]dilead / lead styphnate

• **Hazard statements**

H204 Fire or projection hazard.

H301+H311 Toxic if swallowed or in contact with skin.

H330 Fatal if inhaled.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H350 May cause cancer. Route of exposure: Inhalative.

H360 May damage fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

• **Precautionary statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, sparks, open flames, and hot surfaces. - No smoking.

P250 Do not subject to grinding/shock/friction.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P301+P310 If swallowed: Immediately call a poison center/doctor.

P310 Immediately call a poison center/doctor.

P373 DO NOT fight fire when fire reaches explosives.

P370+P380 In case of fire: Evacuate area.

P374 Fight fire with normal precautions from a reasonable distance.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P372 Explosion risk in case of fire.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 2)

P330 Rinse mouth.
 P302+P352 If on skin: Wash with plenty of water.
 P391 Collect spillage.
 P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
 P401 Store in accordance with local/regional/national/international regulations.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Hazard description:**
- **WHMIS-symbols:** Explosive products are not classified under WHMIS.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.














3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:**

Mixture of the substances listed below with nonhazardous additions.
 Components and percentages will vary dependent upon the choice of powders and primers. Components listed do not reflect metal/plastic casings or projectiles. Not all present will be present in every product.

- **Dangerous components:**

9004-70-0	Nitrocellulose, colloided, granular  Expl. 1.1, H201
55-63-0	glycerol trinitrate / nitroglycerin  Unst. Expl., H200  Flam. Liq. 2, H225  Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330  STOT RE 2, H373
84-74-2	dibutyl phthalate  Repr. 1B, H360
122-39-4	diphenylamine  Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331  STOT RE 2, H373
121-14-2	2,4-dinitrotoluene  Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331  Muta. 2, H341; Carc. 1B, H350; Repr. 2, H361; STOT RE 2, H373
7778-74-7	potassium perchlorate  Ox. Sol. 1, H271  Acute Tox. 4, H302
7757-79-1	potassium nitrate  Ox. Sol. 2, H272
18282-10-5	tin dioxide

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 3)

7782-42-5	Graphite
13114-72-2	3-methyl-1,1-diphenylurea ◆ Acute Tox. 3, H301 ◆ Eye Irrit. 2B, H320
86-30-6	nitrosodiphenylamine ◆ Acute Tox. 3, H301
8050-09-7	Rosin ◆ Skin Sens. 1, H317
10042-76-9	strontium nitrate ◆ Ox. Sol. 2, H272
1314-18-7	strontium peroxide ◆ Ox. Liq. 2, H272
7439-95-4	magnesium powder (pyrophoric) ◆ Pyr. Sol. 1, H250; Water-react. 1, H260
1345-04-6	antimony sulphide
15245-44-0	lead 2,4,6-trinitro-m-phenylene dioxide ◆ Unst. Expl., H200 ◆ Carc. 1B, H350; Repr. 1A, H360; STOT RE 2, H373 ◆ Acute Tox. 4, H302; Acute Tox. 4, H332
12403-82-6	dihydroxy[stypnato(2-)]dilead / lead styphnate ◆ Unst. Expl., H200 ◆ Acute Tox. 2, H300; Acute Tox. 2, H330 ◆ Carc. 1B, H350; Repr. 2, H361; STOT RE 2, H373
13424-46-9	lead diazide ◆ Unst. Expl., H200 ◆ Carc. 1B, H350; Repr. 1A, H360; STOT RE 2, H373 ◆ Acute Tox. 4, H302; Acute Tox. 4, H332
592-87-0	lead dithiocyanate ◆ Carc. 1B, H350; Repr. 1A, H360; STOT RE 2, H373 ◆ Acute Tox. 4, H302; Acute Tox. 4, H332
109-27-3	4-amidino-N'-nitroso-1-tetrazene-1-carboximidohydrazide ◆ Unst. Expl., H200 ◆ Acute Tox. 3, H301 ◆ Acute Tox. 4, H332
3811-04-9	potassium chlorate ◆ Ox. Sol. 1, H271 ◆ Acute Tox. 4, H302; Acute Tox. 4, H332
10022-31-8	barium nitrate ◆ Acute Tox. 4, H302; Acute Tox. 4, H332
65997-17-3	Fibrous glass ◆ Carc. 1B, H350
4682-03-5	diazodinitro phenol (DDNP) ◆ Unst. Expl., H200 ◆ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 4)

- **Additional information:**
For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Unlikely route of exposure.
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** Blast injury if mishandled.
- **Danger**
Danger of blast or crush-type injuries.
Danger of impaired breathing.
- **Indication of any immediate medical attention and special treatment needed**
Medical supervision for at least 48 hours.
If necessary oxygen respiration treatment.
Product may produce physical injury if mishandled. Treatment of these injuries should be based on the blast and compression effects.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Water in flooding quantities.
DO NOT fight fire when fire reaches explosives.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
Fire or projection hazard.
During heating or in case of fire poisonous gases are produced.
Product may explode if burned in confined space. Individual cartridges may explode. Mass explosion of many cartridges at once is unlikely.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 5)

- **Additional information**

Eliminate all ignition sources if safe to do so.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Flammability Classification: (defined by 29 CFR 1910.1200) Explosive. Can explode under fire conditions.

Individual devices will randomly explode. Will not mass explode if multiple devices are involved. Burning material may produce toxic and irritating vapors. In unusual cases, shrapnel may be thrown from exploding devices under containment. See 2008 Emergency response Guidebook for further information.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Ensure adequate ventilation.

Isolate area and prevent access.

- **Environmental precautions:** No special measures required.

- **Methods and material for containment and cleaning up:**

Pick up mechanically.

Dispose unusable material as waste according to item 13.

Send for recovery or disposal in suitable receptacles.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

Handle with care. Avoid jolting, friction and impact.

Use only in well ventilated areas.

Do not subject to grinding/shock/friction.

- **Information about protection against explosions and fires:**

Fire or projection hazard.

DO NOT fight fire when fire reaches explosives.

Protect against electrostatic charges.

Emergency cooling must be available in case of nearby fire.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Protect from humidity and water.

Provide ventilation for receptacles.

- **Information about storage in one common storage facility:** Store away from foodstuffs.

- **Further information about storage conditions:** Keep away from heat.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

· **Specific end use(s)** No further relevant information available.

(Contd. of page 6)

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

55-63-0 glycerol trinitrate / nitroglycerin

PEL (USA)	Ceiling limit value: 2 mg/m ³ , 0.2 ppm Skin
REL (USA)	Short-term value: 0.1 mg/m ³ Skin
TLV (USA)	Long-term value: 0.46 mg/m ³ , 0.05 ppm Skin
EL (Canada)	Long-term value: 0.05 ppm Skin
EV (Canada)	Long-term value: 0.5 mg/m ³ , 0.05 ppm Skin
LMPE (Mexico)	Long-term value: 0.05 ppm PIEL

84-74-2 dibutyl phthalate

PEL (USA)	Long-term value: 5 mg/m ³
REL (USA)	Long-term value: 5 mg/m ³
TLV (USA)	Long-term value: 5 mg/m ³
EL (Canada)	Long-term value: 5 mg/m ³
EV (Canada)	Long-term value: 5 mg/m ³
LMPE (Mexico)	Long-term value: 5 mg/m ³

122-39-4 diphenylamine

REL (USA)	Long-term value: 10 mg/m ³
TLV (USA)	Long-term value: 10 mg/m ³
EL (Canada)	Long-term value: 10 mg/m ³
EV (Canada)	Long-term value: 10 mg/m ³
LMPE (Mexico)	Long-term value: 10 mg/m ³ A4

18282-10-5 tin dioxide

REL (USA)	Long-term value: 2 mg/m ³ as Sn
TLV (USA)	Long-term value: 2 mg/m ³ as Sn

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 7)

EL (Canada)	Long-term value: 2 mg/m ³ as Sn
EV (Canada)	Long-term value: 2 mg/m ³ as Sn
LMPE (Mexico)	Long-term value: 2 mg/m ³ como Sn

7782-42-5 Graphite

PEL (USA)	Long-term value: 15 mppcf* mg/m ³ *impinger samples counted by light field techn.
REL (USA)	Long-term value: 2.5* mg/m ³ *respirable dust
TLV (USA)	Long-term value: 2* mg/m ³ all forms except graphite fibers;*resp. fraction
EL (Canada)	Long-term value: 2 mg/m ³ respirable
EV (Canada)	Long-term value: 2 mg/m ³ respirable
LMPE (Mexico)	Long-term value: 2* mg/m ³ *fracción respirable

8050-09-7 Rosin

TLV (USA)	DSEN, RSEN, L
EL (Canada)	S
LMPE (Mexico)	SEN, (L)

1345-04-6 antimony sulphide

PEL (USA)	Long-term value: 0.5 mg/m ³ as Sb
REL (USA)	Long-term value: 0.5 mg/m ³ as Sb
TLV (USA)	Long-term value: 0.5 mg/m ³ as Sb
EL (Canada)	Long-term value: 0.5 mg/m ³ as Sb
LMPE (Mexico)	Long-term value: 0.5 mg/m ³ como Sb

15245-44-0 lead 2,4,6-trinitro-m-phenylene dioxide

EV (Canada)	Long-term value: 0.05 mg/m ³ as Pb, Skin (organic compounds)
-------------	--

13424-46-9 lead diazide

PEL (USA)	Long-term value: 0.05 mg/m ³ as Pb; See 29 CFR 1910.1025
REL (USA)	Long-term value: 0.05* mg/m ³ as Pb;*8-hr TWA; See Pocket Guide App. C

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 8)

TLV (USA)	Long-term value: 0.05 mg/m ³ as Pb; BEI
EL (Canada)	Long-term value: 0.05 mg/m ³ as Pb; IARC 2A, R

592-87-0 lead dithiocyanate

PEL (USA)	Long-term value: 5 mg/m ³ as CN; Skin
EV (Canada)	Long-term value: 0.05 mg/m ³ as Pb, Skin (organic compounds)

10022-31-8 barium nitrate

PEL (USA)	Long-term value: 0.5 mg/m ³ as Ba
REL (USA)	Long-term value: 0.5 mg/m ³ as Ba
TLV (USA)	Long-term value: 0.5 mg/m ³ as Ba
EL (Canada)	Long-term value: 0.5 mg/m ³ as Ba
LMPE (Mexico)	Long-term value: 0.5 mg/m ³ A4; como Ba

· **Ingredients with biological limit values:**

13424-46-9 lead diazide

BEI (USA)	30 µg/100 ml Medium: blood Time: not critical Parameter: Lead
-----------	--

· **Additional information:** No further relevant information available.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· **Engineering controls:** No further relevant information available.

· **Breathing equipment:** Use suitable respiratory protective device when high concentrations are present.

· **Protection of hands:**

Wear gloves for the protection against mechanical hazards according to OSHA and NIOSH rules.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 9)

checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Safety glasses

- **Body protection:**

Not required under normal conditions of use.

Protection may be required for spills.

- **Limitation and supervision of exposure into the environment**

No further relevant information available.

- **Risk management measures** No further relevant information available.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Solid material

Color:

According to product specification

- **Odor:**

Characteristic

- **Odor threshold:**

Not determined.

- **pH-value:**

Not applicable.

- **Change in condition**

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

Undetermined.

- **Flash point:**

Not applicable.

- **Flammability (solid, gaseous):**

Fire or projection hazard.

- **Auto-ignition temperature:**

Not determined.

- **Decomposition temperature:**

Not determined.

- **Auto igniting:**

Product is not self-igniting.

- **Danger of explosion:**

Not determined.

- **Explosion limits:**

Lower:

Not determined.

Upper:

Not determined.

- **Oxidizing properties**

Contains oxidizing agent.

- **Vapor pressure:**

Not applicable.

- **Density:**

Not determined.

- **Relative density**

Not determined.

- **Vapour density**

Not applicable.

(Contd. on page 11)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 10)

- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with Water:** Variable, dependent upon product composition and packaging.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Keep away from heat, sparks, open flames, and hot surfaces. - No smoking.
- **Possibility of hazardous reactions**
Fire or projection hazard.
Acts as an oxidizing agent on organic materials such as wood, paper and fats.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Nitrogen oxides
Leadoxide vapor
Toxic metal oxide smoke

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

55-63-0 glycerol trinitrate / nitroglycerin

Oral	LD50	115 mg/kg (mouse) 105 mg/kg (rat)
Dermal	LD50	29 mg/kg (rat) 280 mg/kg (rabbit)

84-74-2 dibutyl phthalate

Oral	LD50	8000 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)

122-39-4 diphenylamine

Oral	LD50	1120 mg/kg (rat)
------	------	------------------

(Contd. on page 12)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 11)

121-14-2 2,4-dinitrotoluene

Oral | LD50 | 268 mg/kg (rat)

15245-44-0 lead 2,4,6-trinitro-m-phenylene dioxide

Oral | LD50 | 650 mg/kg (rat)

3811-04-9 potassium chlorate

Oral | LD50 | 1870 mg/kg (rat)

10022-31-8 barium nitrate

Oral | LD50 | 355 mg/kg (rat)

- **Primary irritant effect:**

- **on the skin:**

Not a skin irritant in unused form. Vapors/particles from used product are possibly irritating to skin.

- **on the eye:**

Not an eye irritant in unused form. Vapors/particles from used product are possibly irritating to eyes.

- **Sensitization:**

Contains Rosin. May produce an allergic reaction.

Sensitization possible through skin contact.

- **Additional toxicological information:**

Toxic

Harmful

Irritant

Very toxic

The product can cause deformations.

Danger through skin absorption.

Toxic and/or corrosive effects may be delayed up to 24 hours.

0 percent of the mixture consists of ingredient(s) of unknown toxicity.

- **Carcinogenic categories**

- **NTP (National Toxicology Program)**

15245-44-0	lead 2,4,6-trinitro-m-phenylene dioxide	R
12403-82-6	dihydroxy[styphnato(2-)]dilead / lead styphnate	R
13424-46-9	lead diazide	R
592-87-0	lead dithiocyanate	R

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Probable Routes of Exposure**

Ingestion.

Inhalation.

Eye contact.

Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):**

Danger of blast or crush-type injuries.

Toxic if swallowed or in contact with skin.

- **Repeated Dose Toxicity:**

Chronic inhalation of post-use dusts/mists/fumes/gases may cause disease.

Danger of very serious irreversible effects.

(Contd. on page 13)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 12)

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):**
Muta. 2, Carc. 1B, Repr. 1A
- **Germ cell mutagenicity** Suspected of causing genetic defects.
- **Carcinogenicity** May cause cancer. Route of exposure: Inhalative.
- **Reproductive toxicity** May damage fertility or the unborn child.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** Toxic for aquatic organisms
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** May be accumulated in organism
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary.
Toxic for aquatic organisms
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Incinerate in accordance with local, state and federal regulations.
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 treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA** UN0012
- **UN proper shipping name**
- **DOT** Cartridges, Small Arms

(Contd. on page 14)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 13)

- **ADR** 0012 CARTRIDGES, SMALL ARMS
- **IMDG, IATA** CARTRIDGES, SMALL ARMS
- **Transport hazard class(es)**
- **DOT**



- **Class** 1.4S
- **Label** 1.4

- **ADR, IMDG, IATA**



- **Class** 1.4
- **Label** 1.4S
- **Packing group**
- **DOT, ADR, IMDG, IATA** II
- **Environmental hazards:** Product contains environmentally hazardous substances: dibutyl phthalate, diphenylamine
- **Marine pollutant:** No
- **Special precautions for user** Not applicable.
- **EMS Number:** F-A,S-Q
- **Segregation groups** Heavy metals and their salts (including their organometallic compounds), chlorates, perchlorates
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:**
- **DOT**
- **Quantity limitations** On passenger aircraft/rail: 25 kg
On cargo aircraft only: 100 kg

- **ADR**
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

- **IMDG**
- **Limited quantities (LQ)** 500 g
- **Excepted quantities (EQ)** Code: E4
Maximum net quantity per inner packaging: 1 g
Maximum net quantity per outer packaging: 500 g
- **UN "Model Regulation":** UN0012, CARTRIDGES, SMALL ARMS, 1.4S, II

(Contd. on page 15)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 14)

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

55-63-0	glycerol trinitrate / nitroglycerin
84-74-2	dibutyl phthalate
122-39-4	diphenylamine
121-14-2	2,4-dinitrotoluene
7757-79-1	potassium nitrate
86-30-6	nitrosodiphenylamine
10042-76-9	strontium nitrate
1345-04-6	antimony sulphide
15245-44-0	lead 2,4,6-trinitro-m-phenylene dioxide
12403-82-6	dihydroxy[styphnato(2-)]dilead / lead styphnate
13424-46-9	lead diazide
592-87-0	lead dithiocyanate
10022-31-8	barium nitrate

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65 (California)

Substances listed under Proposition 65 may or may not be present, dependent upon specific product concentration.

· Chemicals known to cause cancer:

121-14-2	2,4-dinitrotoluene
86-30-6	nitrosodiphenylamine
15245-44-0	lead 2,4,6-trinitro-m-phenylene dioxide
12403-82-6	dihydroxy[styphnato(2-)]dilead / lead styphnate
13424-46-9	lead diazide
592-87-0	lead dithiocyanate

· Chemicals known to cause reproductive toxicity for females:

84-74-2	dibutyl phthalate
---------	-------------------

· Chemicals known to cause reproductive toxicity for males:

84-74-2	dibutyl phthalate
121-14-2	2,4-dinitrotoluene

· Chemicals known to cause developmental toxicity:

84-74-2	dibutyl phthalate
---------	-------------------

(Contd. on page 16)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 15)

15245-44-0	lead 2,4,6-trinitro-m-phenylene dioxide
12403-82-6	dihydroxy[styphnato(2-)]dilead / lead styphnate
13424-46-9	lead diazide

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

84-74-2	dibutyl phthalate	D
7778-74-7	potassium perchlorate	NL
86-30-6	nitrosodiphenylamine	B2
13424-46-9	lead diazide	B2
10022-31-8	barium nitrate	D, CBD(inh), NL(oral)

· **IARC (International Agency for Research on Cancer)**

121-14-2	2,4-dinitrotoluene	2B
86-30-6	nitrosodiphenylamine	3
1345-04-6	antimony sulphide	3
13424-46-9	lead diazide	2A

· **TLV (Threshold Limit Value established by ACGIH)**

122-39-4	diphenylamine	A4
13424-46-9	lead diazide	A3
10022-31-8	barium nitrate	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

121-14-2	2,4-dinitrotoluene
----------	--------------------

· **State Right to Know Listings**

None of the ingredients is listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

Some components are listed on the NDSL.

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

122-39-4	diphenylamine
86-30-6	nitrosodiphenylamine

· **Canadian Ingredient Disclosure list (limit 1%)**

84-74-2	dibutyl phthalate
121-14-2	2,4-dinitrotoluene
10022-31-8	barium nitrate

· **Other regulations, limitations and prohibitive regulations**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

(Contd. on page 17)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/11/2015

Reviewed on 06/11/2015

Trade name: Small Arms Ammunition (Non-Tracer rounds)

(Contd. of page 16)

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• **Date of preparation / last revision** 06/11/2015 / -

• **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Expl. 1.1: Explosives, Division 1.1
 Expl. 1.4: Explosives, Division 1.4
 Unst. Expl.: Explosives, Unstable explosives
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Pyr. Sol. 1: Pyrophoric Solids, Hazard Category 1
 Water-react. 1: Substances and Mixtures which, in contact with water, emit flammable gases, Hazard Category 1

Ox. Liq. 2: Oxidising Liquids, Hazard Category 2
 Ox. Sol. 1: Oxidising Solids, Hazard Category 1
 Ox. Sol. 2: Oxidising Solids, Hazard Category 2
 Acute Tox. 2: Acute toxicity, Hazard Category 2
 Acute Tox. 3: Acute toxicity, Hazard Category 3
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 Acute Tox. 1: Acute toxicity, Hazard Category 1
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
 Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
 Muta. 2: Germ cell mutagenicity, Hazard Category 2
 Carc. 1B: Carcinogenicity, Hazard Category 1B
 Repr. 1A: Reproductive toxicity, Hazard Category 1A
 Repr. 1B: Reproductive toxicity, Hazard Category 1B
 Repr. 2: Reproductive toxicity, Hazard Category 2
 STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

• **Sources**

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com