Ramset and Tapcon Powder Loads 0.22, 0.25, 0.27 Caliber

Safety Data Sheet

According to the Hazardous Products Regulations (HPR) WHMIS 2022
Issue date: 03-24-2026 Revision date: 03-24-2026 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Product name : Ramset and Tapcon Powder Loads 0.22, 0.25, 0.27 Caliber
Product code : 22CW, 32CW, 42CW, 3RS25-5RS25, 3RS27-6RS27

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Fastening
Use as intended with Ramset and Tapcon powder actuated tools
Restrictions on use. : Uses other than intented use.

1.4. Supplier's details

Supplier
ITW Construction Products Canada
120 Travail Road
Markham, ON, L3S 3J1
T 905-471-7403

1.5. Emergency phone number

Emergency number : CANUTEC 24-hour number (613-996-6666).

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Physical hazards not otherwise classified, Category 1		May cause an explosion under conditions of shock and/or friction.
Skin sensitization, Category 1B	H317	May cause an allergic skin reaction.
Reproductive toxicity, Category 1A	H360	May damage fertility or the unborn child.
Specific target organ toxicity, Single exposure, Category 1	H370	Causes damage to organs.
Specific target organ toxicity, Repeated exposure, Category 1	H372	Causes damage to organs through prolonged or repeated exposure.

2.2. GHS label elements, including precautionary statements

GHS CA labelling

Hazard pictograms (GHS-CA) :

Signal word (GHS CA) : Danger

Hazard statements (GHS-CA) : H317 - May cause an allergic skin reaction
H360 - May damage fertility or the unborn child
H370 - Causes damage to organs.
H372 - Causes damage to organs through prolonged or repeated exposure.
PHNOC - May cause an explosion under conditions of shock and/or friction

Precautionary statements (GHS-CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust, fume, gas, mist, vapours, spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P308+P311 - IF exposed or concerned: Call a POISON CENTER or a doctor.
P280 - Wear protective gloves, protective clothing, eye and face protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P314 - Get medical advice or attention if you feel unwell.
P405 - Store locked up.
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity

Not applicable

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	Conc. (% w/w)
Copper	C.I. 77400 / C.I. Pigment Metal 2 / Copper, elemental / CI 77400 / Copper metal / Copper, metallic / Copper, granulated / copper / Granulated copper / Pigment Metal 2	CAS-No.: 7440-50-8	< 70
Nitroglycerin	Nitroglycerine / 1,2,3-Propanetriol, 1,2,3-trinitrate / Propane-1,2,3-triyl trinitrate / Trinitroglycerol / Trinitroglycerin / 1,2,3-Propanetriol, trinitrate / Nitroglycerol / Glyceryl trinitrate / Glyceryl nitrate / Glycerol trinitrate / Nitroglycerin, desensitized / Propane-1,2,3-triol trinitrate / Glycerin nitrate / Glycerin trinitrate / Nitro glycerine / nitroglycerin / Glyceryl trinitrate solution	CAS-No.: 55-63-0	0.1 – 5

Name	Chemical name / Synonyms	Product identifier	Conc. (% w/w)
Lead 2,4,6-trinitro-m-phenylene dioxide	Tricinate / Lead 2,4,6-Trinitroresorcinoxide / Normal lead styphnate / Lead trinitroresorcinate / Lead styphnate / Lead 2,4,6-trinitroresorcinoxide / Lead 2,4,6-trinitro-m-phenylene dioxide / 1,3-Benzenediol, 2,4,6-trinitro-, lead(2+) salt (1:1) / 2,4,6-Trinitro-1,3-phenylenedioxylead(II) / Lead(II) 2,4,6-trinitrobenzene-1,3-diolate / 2,4,6-Trinitroresorcinol lead / Lead styphnate, wetted	CAS-No.: 15245-44-0	0.1 - 1

Comments : *Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of Water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : May cause skin irritation. Repeated exposure may cause skin dryness or cracking. May cause an allergic skin reaction.

Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic symptoms : May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Causes damage to organs.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. For large fire: use of water spray might be inefficient for fighting fire.

Unsuitable extinguishing media : Do not use water jet

5.2. Specific hazards arising from the chemical

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Nitrogen oxides. Lead compounds. Irritating vapours.

Explosion hazard : May form flammable/explosive vapour-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Explosive. Explosion risk in case of fire. If heated above 200 °C, can explode. May detonate with friction, impact and heat.

5.3. Special protective actions for fire-fighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Firefighting instructions : DO NOT fight fire when fire reaches explosives. Evacuate area.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

Environmental precautions : Prevent entry to sewers and public waters.

6.2. Methods and materials for containment and cleaning up

For containment : Contain spill, then place in a suitable container. Minimise dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Do not subject to grinding/shock/friction. Projectiles from fired ammunition can cause puncture wounds. Avoid striking the primer of unchambered cartridges. Remove ammunition from service if any of the following conditions have occurred: corrosion, physical damage, exposure to oil or spray type lubricants.

Hygiene measures : Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical Measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Store as defined in the Explosives Act of Canada.

Storage conditions : Store in accordance with local regulations. Keep out of the reach of children. Keep container tightly closed. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Store locked up.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Copper (7440-50-8)	
USA - ACGIH® - Threshold Limit Values	
Local name	Copper, as Cu
ACGIH® TLV® TWA	0.2 mg/m³ (fume)
Remark (ACGIH®)	TLV® Basis: Irr; GI; metal fume fever
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Copper
OSHA PEL TWA	0.1 mg/m³ (fume) 1 mg/m³ (dust and mist)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Nitroglycerin (55-63-0)	
USA - ACGIH® - Threshold Limit Values	
Local name	Nitroglycerin (NG)
ACGIH® TLV® TWA	0.46 mg/m³
ACGIH® TLV® TWA	0.05 ppm
Remark (ACGIH®)	TLV® Basis: Vasodilation. Notations: Skin
ACGIH® chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Nitroglycerin
OSHA PEL C	2 mg/m³
OSHA PEL C	0.2 ppm
Limit value category (OSHA)	prevent or reduce skin absorption
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection:
Wear suitable gloves resistant to chemical penetration. Consult glove manufacturer's product information on material suitability and material thickness.

Eye protection:
Safety glasses or goggles are recommended when using product.

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Solid
Appearance	:	Cylindrical. Brass. Steel. cartridges.
Colour	:	Gold Silver
Odour	:	No data available
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	> 900 °C (1652°F)
Freezing point	:	No data available
Boiling point	:	> 1900 °C (3452°F)
Flash point	:	No data available
Auto-ignition temperature	:	> 200 °C (392°F)
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Not flammable
Vapour pressure	:	No data available
Relative vapour density at 20°C	:	No data available
Relative density	:	> 1
Solubility	:	Insoluble.
Partition coefficient n-octanol/water	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	Fire or projection hazard.
Explosive limits	:	No data available
Particle characteristics	:	No data available

Copper (7440-50-8)	
Boiling point	2567 °C
Vapour pressure	0 hPa (at 1400 °C)
Particle characteristics	No data available

Nitroglycerin (55-63-0)	
Auto-ignition temperature	270 °C
Vapour pressure	0.0025 mm Hg (at 20 °C)
Particle characteristics	No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity	:	No dangerous reactions known under normal conditions of use.
Chemical stability	:	Stable under normal conditions. May mass explode in fire. Extreme risk of explosion by shock, friction, fire or other sources of ignition
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use. May detonate with friction, impact and heat.
Conditions to avoid	:	Heat. Sparks. Open flame. Direct sunlight. Overheating. Incompatible materials.
Incompatible materials	:	Oxidizing agents. Caustics. Acids. Bases. Explosives.
Hazardous decomposition products	:	May include, and are not limited to: oxides of carbon. Nitrogen oxides. Lead compounds.
Hardening time:	:	No additional information available

SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral)	:	Not classified.
Acute toxicity (dermal)	:	Not classified.
Acute toxicity (inhalation)	:	Not classified.

Copper (7440-50-8)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity), Guideline: other:MAFF 4200 (1985)
LC50 inhalation rat	> 5.11 mg/l/4h Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)
ATE CA (oral)	500 mg/kg bodyweight

Nitroglycerin (55-63-0)	
LD50 oral rat	100 mg/kg (Source: JAPAN_GHS)
LD50 dermal rat	> 9560 mg/kg (Source: ECHA_API)
ATE CA (oral)	5 mg/kg bodyweight
ATE CA (Dermal)	5 mg/kg bodyweight
ATE CA (Gases)	100 ppmv/4h
ATE CA (vapours)	0.5 mg/l/4h
ATE CA (dust,mist)	0.05 mg/l/4h

Lead 2,4,6-trinitro-m-phenylene dioxide (15245-44-0)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 inhalation rat	> 5.05 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
ATE CA (Gases)	4500 ppmv/4h
ATE CA (vapours)	11 mg/l/4h
ATE CA (dust,mist)	1.5 mg/l/4h

Skin corrosion/irritation	:	Not classified.
Serious eye damage/irritation	:	Not classified.
Respiratory or skin sensitization	:	May cause an allergic skin reaction.
Germ cell mutagenicity	:	Not classified.
Carcinogenicity	:	Not classified.

Lead 2,4,6-trinitro-m-phenylene dioxide (15245-44-0)	
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen

Reproductive toxicity	:	May damage fertility or the unborn child.
STOT-single exposure	:	Causes damage to organs.

Nitroglycerin (55-63-0)	
STOT-single exposure	Causes damage to organs.

STOT-repeated exposure	:	Causes damage to organs through prolonged or repeated exposure.

Nitroglycerin (55-63-0)	
NOAEL (subchronic, oral, animal/male, 90 days)	114.6 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)
NOAEL (subchronic, oral, animal/female, 90 days)	96.4 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Lead 2,4,6-trinitro-m-phenylene dioxide (15245-44-0)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard	:	Not classified.

Nitroglycerin (55-63-0)	
Viscosity, kinematic	22.5 mm²/s

Symptoms/effects after inhalation	:	May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	:	May cause skin irritation. Repeated exposure may cause skin dryness or cracking. May cause an allergic skin reaction.
Symptoms/effects after eye contact	:	May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/effects after ingestion	:	May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic symptoms	:	May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Causes damage to organs.
Other information	:	Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12 Ecological information

12.1. Toxicity

Ecology - general	:	May cause long-term adverse effects in the aquatic environment.
Hazardous to the aquatic environment, short–term (acute)	:	Not classified.
Hazardous to the aquatic environment, long–term (chronic)	:	Not classified.

Copper (7440-50-8)	
LC50 - Fish [1]	0.0068 – 0.0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas Source: EPA)
LC50 - Fish [2]	< 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
EC50 - Crustacea [1]	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Copper (7440-50-8)	
EC50 72h - Algae [1]	0.0426 – 0.0535 mg/l (Species: Pseudokirchneriella subcapitata [static])
EC50 96h - Algae [1]	0.031 – 0.054 mg/l (Species: Pseudokirchneriella subcapitata [static])

Nitroglycerin (55-63-0)	
LC50 - Fish [1]	0.87 – 3.25 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through] Source: EPA)
LC50 - Fish [2]	0.87 – 2.21 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)
EC50 - Crustacea [1]	46 – 55 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	38 – 55 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 96h - Algae [1]	1.15 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
NOEC (chronic)	3.23 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
LOEC (chronic)	5.48 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'

Lead 2,4,6-trinitro-m-phenylene dioxide (15245-44-0)	
LC50 - Fish [1]	1170 µg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
LC50 - Fish [2]	107 µg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	7.02 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

Ramset and Tapcon Powder Loads 0.22, 0.25, 0.27 Caliber	
Persistence and degradability	Not established.

Copper (7440-50-8)	
Persistence and degradability	Rapidly degradable

Nitroglycerin (55-63-0)	
Persistence and degradability	Rapidly degradable

Lead 2,4,6-trinitro-m-phenylene dioxide (15245-44-0)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

Ramset and Tapcon Powder Loads 0.22, 0.25, 0.27 Caliber	
Bioaccumulative potential	Not established.

Lead 2,4,6-trinitro-m-phenylene dioxide (15245-44-0)	
Partition coefficient n-octanol/water	-2.19 (at 20 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified.

Other information : No other effects known.

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Comply with regulations as defined in the Explosives Act of Canada.

SECTION 14 Transport information

In accordance with TDG

14.1. UN Number

UN-No. (TDG) : UN0323

14.2. UN Proper Shipping Name

Proper Shipping Name (TDG) : CARTRIDGES, POWER DEVICE

14.3. Transport hazard class(es)

TDG

Transport hazard class(es) (TDG) : 1.4S

Hazard labels (TDG) : 1.4S

:

14.4. Packing group, if applicable

Packing group (TDG) : II

14.5. Environmental hazards

Dangerous for the environment : No

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

TDG

UN-No. (TDG) : UN0323

TDG Special Provisions : 105 - This shipping name must not be used unless the results of Test series 6(d) in Part I of the Manual of Tests and Criteria have demonstrated that any dangerous effects arising from functioning are confined within the means of containment.

Explosive Limit and Limited Quantity Index : 25

Excepted quantities (TDG) : E0

14.7. Transport in bulk according to Annex II of MARPOL 73/78[9] and the IBC Code[10]

Not applicable

SECTION 15 Regulatory information

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

SECTION 16 Other Information

Issue date : 03-24-2026

Revision date : 03-24-2026

Other information : None.

Prepared by : Nexreg Compliance Inc.
www.Nexreg.com

Full text of hazard classes and H-statements:	
H317	May cause an allergic skin reaction
H360	May damage fertility or the unborn child
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.

Safety Data Sheet (SDS), Canada - Nexreg 2025