

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: March 11, 2019

Revision: March 11, 2019

1 Identification

- **Product identifier**
- **Trade name:** Spede-Heat™ 40mm Short-Range Round, Saf-Smoke™
- **Product code:** 6283 (1187914)
- **Recommended use and restriction on use**
- **Recommended use:** Explosive product.
- **Restrictions on use:** Contact manufacturer/supplier
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Safariland, LLC
13386 International Parkway
Jacksonville, FL 32218
Customer Care (800) 347-1200
- **Information department:** Customer Care Department
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)



2 Hazard(s) identification

- **Classification of the substance or mixture**
Expl. 1.4 H204 Fire or projection hazard.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS01

- **Signal word:** Warning
- **Hazard statements:**
H204 Fire or projection hazard.
- **Precautionary statements:**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240	Ground/bond container and receiving equipment.
P250	Do not subject to grinding/shock/friction.
P280	Wear protective gloves / eye protection / face protection.
P370+P380	In case of fire: Evacuate area.
P372	Explosion risk in case of fire.
P373	DO NOT fight fire when fire reaches explosives.
P374	Fight fire with normal precautions from a reasonable distance.
P401	Store in accordance with local/regional/national/international regulations.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**

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Explosive Product Notice

PREVENTION OF ACCIDENTS IN THE USE OF EXPLOSIVES - The prevention of accidents in the use of explosives is a result of careful planning and observance of the best known practices. The explosives user must remember that they are dealing with a powerful force and that various devices and methods have been developed to assist them in directing this force. They should realize that this force, if misdirected, may either kill or injure both themselves and their fellow workers.

WARNING - All explosives are dangerous and must be carefully handled and used following approved safety procedures either by or under the direction of competent, experienced persons in accordance with all applicable federal, state, and local laws, regulations, or ordinances. If you have any questions or doubts as to how to use any explosive product, DO NOT USE IT before consulting with your supervisor, or the manufacturer, if you do not have a supervisor. If your supervisor has any questions or doubts, they should consult the manufacturer before use.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Components:

100-21-0	Terephthalic acid	20-50%
9004-70-0	Nitrocellulose, colloided, granular ⚠ Expl. 1.1, H201	20-50%
3811-04-9	potassium chlorate ⚠ Ox. Sol. 1, H271 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	10-40%
57-50-1	Sucrose, pure	10-40%
598-62-9	manganese carbonate	1-10%
7757-79-1	Potassium nitrate ⚠ Ox. Sol. 2, H272	1-10%
7440-21-3	Silicon ⚠ Flam. Sol. 2, H228	<5%
557-04-0	Magnesium stearate	<5%
7429-90-5	Aluminium ⚠ Pyr. Sol. 1, H250; Water-react. 2, H261	<5%

Additional information: For the wording of the listed Hazard Statements, refer to section 16.

Notable Trace Components (< 0.1% w/w)

15245-44-0	lead 2,4,6-trinitro-m-phenylene dioxide/ lead styphnate ⚠ Unst. Expl., H200 ⚠ Repr. 1A, H360; STOT RE 2, H373 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332
592-87-0	lead dithiocyanate ⚠ Carc. 2, H351; Repr. 1A, H360; STOT RE 2, H373 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332

4 First-aid measures

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- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Provide oxygen treatment if affected person has difficulty breathing.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **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.
- **Most important symptoms and effects, both acute and delayed:**
Coughing
Slight irritant effect on eyes.
- **Danger:** Explosive crush or blast injury.
- **Indication of any immediate medical attention and special treatment needed:**
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:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
Fire or projection hazard.
Product may explode if burned in confined space. Individual cartridges may explode. Mass explosion of many cartridges at once is unlikely.
Formation of toxic gases is possible during heating or in case of fire.
Contains oxidizing agent.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **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.

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6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTEL AT 1-800-255-3924. Spills of this material should be handled carefully. Do not subject materials to mechanical shock or extreme heat. A spill of this material will normally not require emergency response team capabilities.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

Protect from heat.

· Environmental precautions

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

· Methods and material for containment and cleaning up

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

Clean the affected area carefully; suitable cleaners are:

Warm water and cleansing agent

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:

Use only outdoors or in a well-ventilated area.

Keep away from heat and direct sunlight.

Handle with care. Avoid jolting, friction and impact.

· Information about protection against explosions and fires:

Protect from heat.

Substance/product can reduce the ignition temperature of flammable substances.

Emergency cooling must be available in case of nearby fire.

· Conditions for safe storage, including any incompatibilities

· Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat, ignition sources or open flame.

Protect from humidity and water.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

Store away from flammable substances.

· Further information about storage conditions: Store in dry conditions.

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

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8 Exposure controls/personal protection

· Control parameters

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

100-21-0 Terephthalic acid

TLV (USA)	Long-term value: 10 mg/m ³
EL (Canada)	Long-term value: 10* 3** mg/m ³ *total dust; **respirable fraction
EV (Canada)	Long-term value: 10 mg/m ³
LMPE (Mexico)	Long-term value: 10 mg/m ³

57-50-1 Sucrose, pure

PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	Long-term value: 10 mg/m ³
EL (Canada)	Long-term value: 10* 3** mg/m ³ *total dust; **respirable fraction
EV (Canada)	Long-term value: 10 mg/m ³ total dust
LMPE (Mexico)	Long-term value: 10 mg/m ³ A4

598-62-9 manganese carbonate

PEL (USA)	Ceiling limit value: 5 mg/m ³ as Mn
REL (USA)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³ as Mn
TLV (USA)	Long-term value: 0.02* 0.1** mg/m ³ as Mn; *respirable **inhalable fraction
EL (Canada)	Long-term value: 0.2; 0.02* mg/m ³ as Mn; R, *respirable
LMPE (Mexico)	Long-term value: 0.2 mg/m ³ como Mn

7440-21-3 Silicon

PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	TLV withdrawn
EL (Canada)	Long-term value: 10* 3** mg/m ³ *total dust; **respirable fraction
EV (Canada)	Long-term value: 10 mg/m ³

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LMPE (Mexico)	total dust Short-term value: 20 mg/m ³ Long-term value: 10 mg/m ³ (e)
557-04-0 Magnesium stearate	
TLV (USA)	Long-term value: 10* 3** mg/m ³ Fraction: *inhalable **respirable
LMPE (Mexico)	Long-term value: 10 mg/m ³ A4
7429-90-5 Aluminium	
PEL (USA)	Long-term value: 15*; 5** mg/m ³ *Total dust; ** Respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV (USA)	Long-term value: 1* mg/m ³ as Al; *as respirable fraction
EL (Canada)	Long-term value: 1.0 mg/m ³ respirable, as Al
EV (Canada)	Long-term value: 5 mg/m ³ aluminium-containing (as aluminium)
LMPE (Mexico)	Long-term value: 1* mg/m ³ A4, *fracción respirable

- **Exposure controls**

- **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.

Do not inhale dust / smoke / mist.

Avoid contact with the eyes.

- **Engineering controls:** Use only outdoors or in a well-ventilated area.

- **Breathing equipment:**

Not required under normal conditions of use.

Wear positive pressure NIOSH or European EN149 vapor respirators when deploying product in large quantities.

- **Protection of hands:**

Gloves not required under normal conditions of use.

Wear protective gloves to handle contents of damaged or leaking units.

- **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 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:**

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Safety glasses

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment**
No relevant information available.
- **Risk management measures**
See Section 7 for additional information.
Organizational measures should be in place for all activities involving this product.
No relevant information available.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **Appearance:**
 - **Form:** Solid metal container containing liquid and solid contents.
 - **Color:** According to product specification
- **Odor:** Odorless
- **Odor threshold:** Not determined.
- **pH-value:** Not applicable.
- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:** Not determined.
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not determined.
- **Auto-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Danger of explosion:** Heating may cause an explosion.
- **Explosion limits**
 - **Lower:** Not determined.
 - **Upper:** Not determined.
- **Oxidizing properties:** Contains oxidizing agent.
- **Vapor pressure:** Not applicable.
- **Density:** Not determined.
- **Relative density:** Not determined.
- **Vapor density:** Not applicable.
- **Evaporation rate:** Not applicable.
- **Solubility in / Miscibility with**
 - **Water:** Insoluble.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity**
 - **Dynamic:** Not applicable.

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Kinematic:

Not applicable.

Other information

No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Toxic fumes may be released if heated above the decomposition point.
Reacts with flammable substances.
Can react violently with oxygen rich (oxidizing) material. Danger of Explosion.
- **Conditions to avoid**
Store away from oxidizing agents.
Keep ignition sources away - Do not smoke.
Cartridge may detonate if case is punctured or severely damaged.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**
Carbon monoxide and carbon dioxide
Nitrogen oxides
Toxic metal oxide smoke
Chlorine compounds

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

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

3811-04-9 potassium chlorate

Oral	LD50	1870 mg/kg (rat)
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- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** No sensitizing effects known.

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

15245-44-0	lead 2,4,6-trinitro-m-phenylene dioxide/ lead styphnate	2B
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· **NTP (National Toxicology Program):**

None of the ingredients are listed.

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

None of the ingredients are listed.

· **Probable route(s) of exposure:**

Ingestion.
Inhalation.

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Eye contact.

Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** Blast injury if mishandled.
- **Repeated dose toxicity:** No relevant information available.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Ecotoxic effects:**
- **Remark:** Harmful to fish
- **Additional ecological information**
- **General notes:**
 - Do not allow product to reach ground water, water course or sewage system.
 - Danger to drinking water if even small quantities leak into the ground.
 - Harmful to aquatic organisms
 - Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No 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.
 - 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.

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14 Transport information

· UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	UN0303
· UN proper shipping name · DOT, IMDG, IATA · ADR/RID/ADN	Ammunition Smoke with or without burster, expelling charge or propelling charge 0303, 1.4G, Ammunition Smoke with or without burster, expelling charge or propelling charge
· Transport hazard class(es) · DOT 	
· Class · Label	1.4 1.4G
· ADR/RID/ADN, IMDG 	
· Class · Label	1.4 1.4G
· IATA 	
· Class · Label	1.4 1.4g
· Packing group · DOT, ADR/RID/ADN, IMDG, IATA	II
· Environmental hazards · Marine pollutant:	No
· Special precautions for user · EMS Number: · Segregation groups	Not applicable. F-A,S-Q Chlorates
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information: · IATA	

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Cargo Aircraft Only.

15 Regulatory information

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

· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

598-62-9 | manganese carbonate

7757-79-1 | Potassium nitrate

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Proposition 65 (California)

· Chemicals known to cause cancer:

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

· Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

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

· EPA (Environmental Protection Agency):

598-62-9 | manganese carbonate

D

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL) (Substances not listed.):

All ingredients listed on DSL or NDSL.

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.

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· Abbreviations and acronyms:

ADR: 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
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bio-accumulable, Toxic
vPvB: very Persistent and very Bioaccumulative
OSHA: Occupational Safety & Health Administration
Expl. 1.1: Explosives – Division 1.1
Expl. 1.4: Explosives – Division 1.4
Flam. Sol. 2: Flammable solids – Category 2
Pyr. Sol. 1: Pyrophoric solids – Category 1
Water-react. 2: Substances and mixtures which in contact with water emit flammable gases – Category 2
Ox. Sol. 1: Oxidizing solids – Category 1
Ox. Sol. 2: Oxidizing solids – Category 2
Acute Tox. 4: Acute toxicity – Category 4

· Sources

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