

# Safety Data Sheet

## SPIRIT 98






Safety Data Sheet dated 7/1/2015, version 3.7

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1. Product identifier  
Mixture identification:  
Trade name: Spirit 98  
Trade code: 13910/04
- 1.2. Relevant identified uses of the substance or mixture and uses advised against  
Recommended use:  
Aluminium Spray (aerosol).
- 1.3. Details of the supplier of the safety data sheet  
Company:  
Strima Sp. z o.o.  
Swadzim, ul. Poznańska 54  
62-080 Tarnowo Podgórne  
Competent person responsible for the safety data sheet:  
mail@strima.com
- 1.4. Emergency telephone number  
Strima Sp. z o.o. +48 61 8950950

### SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture  
Directive criteria, 67/548/CE, 99/45/EC and following amendments thereof:  
Properties / Symbols:  
F+ Extremely flammable  
Xi Irritant
- R Phrases:  
R12 Extremely flammable.  
R38 Irritating to skin.  
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R67 Vapours may cause drowsiness and dizziness.
- EC regulation criteria 1272/2008 (CLP)
-  Danger, Flam. Aerosol 1, Extremely flammable aerosol.
  -  Warning, Skin Irrit. 2, Causes skin irritation.
  -  Warning, Eye Irrit. 2, Causes serious eye irritation.
- Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:  
No other hazards

- 2.2. Label elements  
Symbols:



- Danger  
Hazard statements:  
H222 Extremely flammable aerosol.  
H229 Pressurised container: May burst if heated.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.
- Precautionary statements:  
P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211 Do not spray on an open flame or other ignition source.

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P251 Do not pierce or burn, even after use.

P261 Avoid breathing spray.

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

P501 Dispose of container in accordance with national regulation.

### Special Provisions:

The manufacturer cannot be held responsible in case of damages caused by incorrect use of the product.

Special provisions according to Annex XVII of REACH and subsequent amendments:

Restricted to professional users.

### 2.3. Other hazards

vPvB Substances: None - PBT Substances: None

### Other Hazards:

No other hazards

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## SECTION 3: Composition/information on ingredients

### 3.1. Substances

N.A.

### 3.2. Mixtures

Hazardous components within the meaning of EEC directive 67/548 and CLP regulation and related classification:

>= 40% - < 50% Hydrocarbons, C3-4

REACH No.: 01-2119486557-22, Index number: 649-199-00-1, CAS: 68476-40-4, EC: 270-681-9

F+; R12; substance with a Community workplace exposure limit



2.5 Press. Gas H280



2.2/1 Flam. Gas 1 H220

Note K\* The substance contains < 0,1 % weight/weight 1,3-butadiene (EINECS No. 203-450-8).

>= 15% - < 20% Hydrocarbons, C6, Isoalkanes, <5 % n-Hexane

REACH No.: 01-2119484651-34, EC: 931-254-9

F,Xn,Xi,N; R11-38-51/53-65-67



2.6/2 Flam. Liq. 2 H225



3.10/1 Asp. Tox. 1 H304



3.2/2 Skin Irrit. 2 H315



3.8/3 STOT SE 3 H336



4.1/C2 Aquatic Chronic 2 H411

>= 10% - < 12.5% o-xylene

REACH No.: 01-2119488216-32, Index number: 601-022-00-9, CAS: 1330-20-7, EC: 215-535-7

Xn,Xi; R10-20/21-38



2.6/3 Flam. Liq. 3 H226



3.2/2 Skin Irrit. 2 H315



3.1/4/Dermal Acute Tox. 4 H312



3.1/4/Inhal Acute Tox. 4 H332

>= 1% - < 2.5% Naphtha (petroleum), hydrotreated heavy

Index number: 649-327-00-6, CAS: 64742-48-9, EC: 265-150-3

Xn; R65



3.10/1 Asp. Tox. 1 H304


Note P\* The substance contains < 0,1 % weight/weight benzene (EINECS No. 200-753-7).

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>= 1% - < 2.5% n-butyl acetate

REACH No.: 01-2119485493-29, Index number: 607-025-00-1, CAS: 123-86-4, EC: 204-658-1  
R10-66-67

 2.6/3 Flam. Liq. 3 H226

 3.8/3 STOT SE 3 H336

For the wording of the listed risk phrases refer to section 16.

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

N.A. as aerosol preparation.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

#### 4.2. Most important symptoms and effects, both acute and delayed

None

#### 4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

None in particular.

#### 5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

#### 5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

#### 6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

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- 6.3. Methods and material for containment and cleaning up  
Wash with plenty of water.
- 6.4. Reference to other sections  
See also section 8 and 13

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### SECTION 7: Handling and storage

- 7.1. Precautions for safe handling  
Pressurized container. Do not perforate or burn even after use.  
Do not use near fire or other possible sources of ignition. During work phase do not smoke.
- Avoid contact with skin and eyes, inhalation of vapours and mists.  
Contaminated clothing should be changed before entering eating areas.  
Do not eat or drink while working.  
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities  
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.  
Keep away from food, drink and feed.  
Incompatible materials:  
None in particular. See also section number 10  
Instructions as regards storage premises:  
Cool and adequately ventilated.
- 7.3. Specific end use(s)  
None in particular

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### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters  
Hydrocarbons, C3-4 - CAS: 68476-40-4  
TLV TWA - 1000 ppm (2400mg/m3)  
TLV STEL - 4000 ppm (9600mg/m3)  
Hydrocarbons, C6, Isoalkanes, <5 % n-Hexane  
TLV TWA - 1200 mg/m3  
o-xylene - CAS: 1330-20-7  
EU - LTE(8h): 221 mg/m3, 50 ppm - STE: 442 mg/m3, 100 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)  
ACGIH, 100 ppm, 150 ppm - Notes: A4, BEI - URT and eye irr, CNS impair  
n-butyl acetate - CAS: 123-86-4  
ACGIH, 150 ppm, 200 ppm - Notes: Eye and URT irr
- DNEL Exposure Limit Values  
Hydrocarbons, C6, Isoalkanes, <5 % n-Hexane  
Consumer: 1301 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects - Notes: bw/day  
Worker Industry: 13964 19141.03 - Consumer: 1377 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects - Notes: bw/day  
Worker Industry: 5306 19141.03 - Consumer: 1137 19141.03 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: bw/day
- PNEC Exposure Limit Values  
N.A.
- 8.2. Exposure controls
- Eye protection:  
Wear goggles with lateral protection EN166 .  
If exposure to vapours cause a sense of bother to eyes, use antigas mask with complete facial.
- Protection for skin:  
It is not necessary in case of brief contact except for wearing antistatic clean and covering garments.  
In case of long and frequent contact use protective and waterproof garments to this material.  
Choosing specific protection as peak, gloves, boots, overalls depends on the type of operations.
- Protection for hands:  
During normal manipulation it is not necessary a particular protection.  
In case of frequent contacts protect hands with gloves resistant to solvents (OVC,PE, neoprene, not natural rubber).
- Respiratory protection:

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The levels of air concentration should be maintained under the exposure limits. If inhalation are over exposure limit use a supplied air respirator with cartridge filter. Filter type EN 141.

Thermal Hazards:

None

Environmental exposure controls:

Keep the container and use the product only in well ventilated place. A located ventilation may be necessary for some operations.

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### SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance and colour:	Pressurized container with liquefied gases
Odour:	characteristic
Odour threshold:	N.A.
pH:	N.A.
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	> -42 °C
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	> 2
Flash point:	< 0 °C
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	N.A.
Solubility in water:	Not soluble
Solubility in oil:	Yes
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	> 400 °C
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.

9.2. Other information

Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

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### SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Keep away from sunlight. Keep at temperature not exceeding 50°C. Keep away from oxidant agents.

10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products

None.

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### SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the mixture:

N.A.

Toxicological information of the main substances found in the mixture:

Hydrocarbons, C6, Isoalkanes, <5 % n-Hexane

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat > 20 mg/l - Duration: 4h

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Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg  
Test: LD50 - Route: Skin - Species: Rabbit > 3000 mg/kg  
o-xylene - CAS: 1330-20-7  
a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Rat = 3523 mg/kg  
Test: LD50 - Route: Skin - Species: Rabbit = 4350 mg/kg  
Test: LC50 - Route: Inhalation - Species: Rat = 27 mg/l - Duration: 4h  
Naphtha (petroleum), hydrotreated heavy - CAS: 64742-48-9  
a) acute toxicity:  
Test: LC50 - Route: Inhalation - Species: Rat > 5000 mg/m<sup>3</sup> - Duration: 4h  
Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg  
Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

It doesn't Contain CHLORINE-FLUORINE-CARBIDE.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hydrocarbons, C6, Isoalkanes, <5 % n-Hexane

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 55 mg/l - Duration h: 72 - Notes: Pseudokirchneriella subcapitata

Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen - CAS: 64742-48-9

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 1000 mg/l - Duration h: 48

#### 12.2. Persistence and degradability

None

N.A.

#### 12.3. Bioaccumulative potential

N.A.

#### 12.4. Mobility in soil

N.A.

#### 12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

#### 12.6. Other adverse effects

None

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force. Aerosol container can explode at temperature Above 50°C if contains little gas residue. Spray all the aerosol content before disposal. The product has to be considered: special dangerous disposal.

Waste disposal key:

The aerosol as a domestic waste is excluded from the application of such a normative for industrial activity, the empty aerosol for professional use can be classified as follow: 15.01.10: packaging containing residues of dangerous substances or residues contaminated by these substances.

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### SECTION 14: Transport information

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- 14.1. UN number  
ADR-UN number: 1950  
IATA-Un number: 1950  
IMDG-Un number: 1950
- 14.2. UN proper shipping name  
ADR-Shipping Name: AEROSOLS, Flammable  
IATA-Technical name: AEROSOLS  
IMDG-Technical name: AEROSOLS, Flammable  
Limited Quantity: max 1000ml Total gross mass of package not exceed 30 kg LQ2
- 14.3. Transport hazard class(es)  
ADR-Class: 2 ,5F  
ADR-Label: <UN1950 AEROSOLS>  
IATA-Class: 2.1  
IATA-Label: <UN1950 AEROSOLS>  
IMDG-Class: 2
- 14.4. Packing group
- 14.5. Environmental hazards
- 14.6. Special precautions for user  
IMDG-Technical name: AEROSOLS, Flammable  
Limited Quantity: max 1000ml Total gross mass of package not exceed 30 kg LQ2  
IMDG-EMS: F-D  
IMDG-MFAG: S-U
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
N.A.

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### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances)  
Dir. 99/45/EC (Classification, packaging and labelling of dangerous preparations)  
Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Dir. 2006/8/EC  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) n. 453/2010 (Annex I)  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)
- Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:  
None
- Where applicable, refer to the following regulatory provisions :  
Directive 2003/105/CE ('Activities linked to risks of serious accidents') and subsequent amendments.  
Regulation (EC) nr 648/2004 (detergents).  
1999/13/EC (VOC directive)
- Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):  
N.A.
- 15.2. Chemical safety assessment  
No

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### SECTION 16: Other information

- Full text of phrases referred to in Section 3:  
R10 Flammable.  
R11 Highly flammable.  
R12 Extremely flammable.  
R20/21 Harmful by inhalation and in contact with skin.  
R38 Irritating to skin.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R65 Harmful: may cause lung damage if swallowed.

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R66 Repeated exposure may cause skin dryness or cracking.  
R67 Vapours may cause drowsiness and dizziness.

H280 Contains gas under pressure; may explode if heated.  
H220 Extremely flammable gas.  
H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H336 May cause drowsiness or dizziness.  
H411 Toxic to aquatic life with long lasting effects.  
H226 Flammable liquid and vapour.  
H312 Harmful in contact with skin.  
H332 Harmful if inhaled.

Classification of substances according to 1272/2008/CE (CLP-GHS) and further ATP and Regulation 790/2009/CE.  
SDS drafted in accordance with 1907/2006/CE REACH and 453/2010/CE.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities  
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold  
CCNL - Appendix 1  
Insert further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.  
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.  
This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
CAS: Chemical Abstracts Service (division of the American Chemical Society).  
CLP: Classification, Labeling, Packaging.  
DNEL: Derived No Effect Level.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
IMDG: International Maritime Code for Dangerous Goods.  
INCI: International Nomenclature of Cosmetic Ingredients.  
KSt: Explosion coefficient.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
LTE: Long-term exposure.  
PNEC: Predicted No Effect Concentration.  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
STE: Short-term exposure.  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
WGK: German Water Hazard Class.