

Safety Data Sheet

acc. to OSHA HCS

Printing Date 07/02/2018

Revision Number 7

Revision Date 07/02/2018

1 Identification

- **Product identifier**
- **Trade name:** Seal-Fast Spray Primer
- **Article number:** 731172
- **Relevant identified uses of the substance or mixture.** Primer
- **Application of the substance / the mixture** Primer/ Subcoating
- **Details of the supplier of the safety data sheet**
- **Manufacturer**
 Royal Adhesives & Sealants, LLC
 4401 Page Avenue, P. O. Box 457
 Michigan Center, MI 49254
 Information Phone Number: 517-764-0334
- **Supplier:**
 Mule-Hide Products Co., Inc.
 1195 Prince Hall Dr.
 Beloit, WI 53511
 800-746-1492
- **Information department:** Environment protection department.
- **Emergency telephone number:**
 ChemTrec: Day or Night within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-527-3887
 (collect calls accepted)

2 Hazard(s) identification

- **Classification of the substance or mixture**


GHS02 Flame

Flam. Aerosol 1 H222 Extremely flammable aerosol.


GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.


GHS08 Health hazard

Muta. 1B	H340 May cause genetic defects.
Carc. 1A	H350 May cause cancer.
Repr. 2	H361 Suspected of damaging fertility or the unborn child.
STOT RE 2	H373 May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1	H304 May be fatal if swallowed and enters airways.


GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

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GHS07

Skin Irrit. 2 H315 Causes skin irritation.
 STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02 GHS04 GHS07 GHS08 GHS09

- **Signal word** *Danger*
- **Hazard statements**
 - Extremely flammable aerosol.*
 - Contains gas under pressure; may explode if heated.*
 - Causes skin irritation.*
 - May cause genetic defects.*
 - May cause cancer.*
 - Suspected of damaging fertility or the unborn child.*
 - May cause drowsiness or dizziness.*
 - May cause damage to organs through prolonged or repeated exposure.*
 - May be fatal if swallowed and enters airways.*
 - Toxic to aquatic life with long lasting effects.*
- **Precautionary statements**
 - Obtain special instructions before use.*
 - Do not handle until all safety precautions have been read and understood.*
 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*
 - Do not spray on an open flame or other ignition source.*
 - Pressurized container: Do not pierce or burn, even after use.*
 - Do not breathe dust/fume/gas/mist/vapors/spray.*
 - Wash thoroughly after handling.*
 - Use only outdoors or in a well-ventilated area.*
 - Avoid release to the environment.*
 - Wear protective gloves/protective clothing/eye protection/face protection.*
 - If swallowed: Immediately call a poison center/doctor.*
 - Specific treatment (see on this label).*
 - Do NOT induce vomiting.*
 - If on skin: Wash with plenty of water.*
 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.*
 - IF exposed or concerned: Get medical advice/attention.*
 - Call a poison center/doctor if you feel unwell.*
 - Get medical advice/attention if you feel unwell.*
 - Take off contaminated clothing and wash it before reuse.*
 - If skin irritation occurs: Get medical advice/attention.*
 - Collect spillage.*
 - Store in a well-ventilated place. Keep container tightly closed.*
 - Store locked up.*
 - Protect from sunlight. Store in a well-ventilated place.*
 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.*

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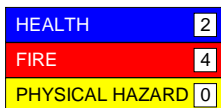
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 4
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 2
Fire = 4
Physical Hazard = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description: Mixture**

- **Hazardous components:**

110-54-3	n-hexane	50-100%
106-97-8	butane (containing $\geq 0,1\%$ butadiene (203-450-8))	5-20%
74-98-6	propane	5-20%

- **Additional information:**

All concentrations are in percent by weight unless the ingredient is a gas. Gas concentrations are in percent by volume. Any pigments or fillers in this product which may be considered "Hazardous" are potentially hazardous only if inhaled as an airborne dust. Exposure by these ingredients as used in sealants, putties, bedding compounds and non-sprayable products is highly unlikely. For the wording of the listed risk phrases refer to section 15.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
In case of unconsciousness place patient stably in side position for transportation.
Call a doctor immediately.
Overexposure, remove to fresh air and seek medical attention.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for 20 minutes under running water. If eye becomes irritated, obtain medical treatment.
- **After swallowing:** Seek medical treatment.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
Water
Water and water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Protective clothing and respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose of contaminated material as waste in accordance with federal state and local regulations.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **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.
- **Protective Action Criteria for Chemicals**

· PAC-1:

110-54-3	n-hexane	260 ppm
74-98-6	propane	5500* ppm

· PAC-2:

110-54-3	n-hexane	2900* ppm
74-98-6	propane	17000** ppm

· PAC-3:

110-54-3	n-hexane	8600** ppm
74-98-6	propane	33000*** ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Avoid prolonged or repeated contact with skin.
Avoid contact with eyes.
Wash thoroughly after handling.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**
Do not spray on a naked flame or any incandescent material.

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Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.
 Keep respiratory protective device available.
 Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

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

- **Storage:**

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

Store in a cool location away from direct heat.

Observe official regulations on storing packagings with pressurized containers.

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

- **Further information about storage conditions:**

Keep receptacle tightly sealed.

Do not gas tight seal receptacle.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

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

* 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:**

110-54-3 n-hexane

PEL Long-term value: 1800 mg/m³, 500 ppm

REL Long-term value: 180 mg/m³, 50 ppm

TLV Long-term value: 176 mg/m³, 50 ppm

Skin; BEI

106-97-8 butane (containing ≥0,1% butadiene (203-450-8))

REL Long-term value: 1900 mg/m³, 800 ppm

TLV Short-term value: 2370 mg/m³, 1000 ppm
(EX)

74-98-6 propane

PEL Long-term value: 1800 mg/m³, 1000 ppm

REL Long-term value: 1800 mg/m³, 1000 ppm

TLV refer to Appendix F in TLVs & BEIs book; D, EX

- **Ingredients with biological limit values:**

110-54-3 n-hexane

BEI 0.4 mg/L

Medium: urine

Time: end of shift at end of workweek

Parameter: 2,5-Hexanedione without hydrolysis

- **Additional information: The lists that were valid during the creation were used as basis.**

- **Exposure controls**

- **Personal protective equipment (see listings below)**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

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Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

· **Protection of hands:**



Protective gloves

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Nitrile rubber, NBR

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:**

Safety glasses with side shields.



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Liquid

Color: Clear

· **Odor:** Characteristic

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point: Undetermined.

Boiling point: 69 °C (156.2 °F)

· **Flash point:** -23 °C (-9.4 °F)

· **Flammability (solid, gaseous):** Not applicable.

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· Ignition temperature:	240 °C (464 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Not determined.
· Flammable limits:	
Lower:	1.1 Vol %
Upper:	7.5 Vol %
· Vapor pressure at 20 °C (68 °F):	140 hPa (105 mm Hg)
· Specific gravity at 20 °C (68 °F):	0.7 g/cm ³ (5.8415 lbs/gal)
· Relative density	Not determined.
· Vapor density	3
· Evaporation rate	8.1
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Heat, flames, sparks.
- **Incompatible materials:** Reacts with oxidizing agents.
- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Hydrocarbons

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:**
Skin irritant.
Irritant to skin and mucous membranes.
- **on the eye:**
May irritate the eye.
Vapors may be irritating to the eyes.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:

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Irritant
Carcinogenic.
The product can cause inheritable damage.

· **Carcinogenic categories**

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

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **Persistence and degradability** *No further relevant information available.*
- **Behavior in environmental systems:**
- **Bioaccumulative potential** *No further relevant information available.*
- **Mobility in soil** *No further relevant information available.*
- **Ecotoxicological effects:**
- **Remark:** *Toxic for fish*
- **Additional ecological information:**
- **General notes:**
At present there are no ecotoxicological assessments.
Water hazard class 2 (Self-assessment): hazardous for water
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.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **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.
Must be specially treated adhering to official regulations.
Disposal must be made according to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** *Disposal must be made according to official regulations.*

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14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA 	<p style="margin: 0;">UN1950</p>
<ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG · IATA 	<p style="margin: 0;">Aerosols, flammable AEROSOLS AEROSOLS, flammable</p>
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	<p style="margin: 0;">2.1 2.1</p>
<ul style="list-style-type: none"> · IMDG, IATA 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	<p style="margin: 0;">2.1 2.1</p>
<ul style="list-style-type: none"> · Packing group · DOT, IMDG, IATA 	<p style="margin: 0;">not regulated</p>
<ul style="list-style-type: none"> · Environmental hazards: 	<p style="margin: 0;">Product contains environmentally hazardous substances: n-hexane</p>
<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Code 	<p style="margin: 0;">Warning: Gases - F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.</p>
<ul style="list-style-type: none"> · Segregation Code 	<p style="margin: 0;">-</p>
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	<p style="margin: 0;">Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: · DOT · Remarks: 	<p style="margin: 0;">Except by air, this product can ship as limited quantity per 49 CFR 172.102.149</p>

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· **IMDG**· **Remarks:**

Except by air, this product can ship as limited quantity per 49 CFR 172.102.149

· **UN "Model Regulation":**

UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Sara**· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

110-54-3 n-hexane

· **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

· **Proposition 65**· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

110-54-3 n-hexane

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

· **New Jersey Right-to-Know List:**

110-54-3 n-hexane

74-98-6 propane

· **New Jersey Special Hazardous Substance List:**

110-54-3 n-hexane

F3

74-98-6 propane

F4

· **Pennsylvania Right-to-Know List:**

110-54-3 n-hexane

74-98-6 propane

· **Pennsylvania Special Hazardous Substance List:**

None of the ingredients is listed.

· **Carcinogenicity categories**· **EPA (Environmental Protection Agency)**

110-54-3 n-hexane

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· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

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

None of the ingredients is listed.

· National regulations:
· Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

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

16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

· Department issuing SDS: Environment protection department.

· Creation Date: 03/09/2014

· Date of preparation / last revision 07/02/2018 / 6

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flam. Aerosol 1: Aerosols – Category 1

Press. Gas: Gases under pressure – Compressed gas

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1A: Carcinogenicity – Category 1A

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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