

Material Safety Data Sheet
acc. to OSHA HCS

Printing Date 03/11/2015

Revision Number 2

Revision Date 03/11/2015

1 Identification

 · **Product identifier**

 · **Trade name:** Seal-Fast Spray Cleaner

 · **Article number:** 731358

 · **Relevant identified uses of the substance or mixture.** Cleaner

 · **Application of the substance / the mixture** Degreaser

 · **Details of the supplier of the safety data sheet**

 · **Manufacturer**

Royal Adhesives & Sealants, LLC

17340 Munn Road

Chagrin Falls, OH 44023

Information Phone Number: 517-764-0334

 · **Supplier:**

Mule-Hide Products Co., Inc.

1195 Prince Hall Dr.

Beloit, WI 53511

Information Phone Number: 800-786-1492

 · **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

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.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

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· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

**Irritant***Irritating to eyes.***Extremely flammable***Extremely flammable.***Dangerous for the environment***Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**Vapours may cause drowsiness and dizziness.*

· **Information concerning particular hazards for human and environment:**

*Warning! Pressurized container.**Has a narcotizing effect.*

· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Code letter and hazard designation of product:**

**Irritant****Extremely flammable****Dangerous for the environment**

· **Risk phrases:**

*Extremely flammable.**Irritating to eyes.**Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**Vapours may cause drowsiness and dizziness.*

· **Safety phrases:**

*Keep out of the reach of children.**Keep away from sources of ignition - No smoking.**Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).**Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.**If swallowed, seek medical advice immediately and show this container or label.**Use only in well-ventilated areas.*

· **Special labeling of certain preparations:**

*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.**Do not spray on a naked flame or any incandescent material.*

· **Classification in accordance with Directive 75/324/EEC: Extremely flammable**

· **Hazard description:**

· **WHMIS classification**

*A - Compressed gas**B5 - Flammable aerosol*

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D2B - Toxic material causing other toxic effects



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



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

HEALTH	2	Health = 2
FIRE	4	Fire = 4
PHYSICAL HAZARD	0	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 of the substances listed below with nonhazardous additions.

· **Dangerous components:**

67-64-1	acetone	60-100%
124-38-9	carbon dioxide	5-10%
142-82-5	heptane	1-5%
589-34-4	3-methylhexane	1-5%
108-87-2	methylcyclohexane	1-5%
110-82-7	cyclohexane	≤ 1%

· **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:**
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.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- **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.

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**
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
- **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.

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.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
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.

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- **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:**

67-64-1 acetone

EL Short-term value: 500 ppm
Long-term value: 250 ppm

EV Short-term value: 750 ppm
Long-term value: 500 ppm

124-38-9 carbon dioxide

EL Short-term value: 15000 ppm
Long-term value: 5000 ppm

EV Short-term value: 54.000 mg/m³, 30.000 ppm
Long-term value: 9.000 mg/m³, 5.000 ppm

142-82-5 heptane

EL Short-term value: 500 ppm
Long-term value: 400 ppm

EV Short-term value: 2.045 mg/m³, 500 ppm
Long-term value: 1.635 mg/m³, 400 ppm

108-87-2 methylcyclohexane

EL Long-term value: 400 ppm

EV Long-term value: 1.600 mg/m³, 400 ppm

110-82-7 cyclohexane

EL Long-term value: 100 ppm

EV Long-term value: 100 ppm

- **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.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.

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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:**

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:	Aerosol
Color:	Clear
Odor:	Solvent-like
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point:	Undetermined.
Boiling point:	56 °C

· **Flash point:** < -18 °C

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

· **Ignition temperature:** 465 °C

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Not determined.

· **Flammable limits:**

Lower:	2.6 Vol %
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Upper:	13.0 Vol %
· Vapor pressure at 20 °C:	57300 hPa
· Specific gravity at 20 °C:	0.78 g/cm ³
· Relative density	Not determined.
· Vapour 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.
· Solvent content:	
Organic solvents:	87.0 %
· Other information	VOC's .59 LB/GAL 70.2 g/l

10 Stability and reactivity

- **Reactivity**
- **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:**

· LD/LC50 values that are relevant for classification:		
67-64-1 acetone		
Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)
108-87-2 methylcyclohexane		
Oral	LD50	2250 mg/kg (mouse)
110-82-7 cyclohexane		
Oral	LD50	12705 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Skin irritant.
- **on the eye:**
May irritate the eye.

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Vapors may be irritating to the eyes.

Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **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

· UN-Number	UN1950
· DOT, TDG, IMDG, IATA	UN1950
· UN proper shipping name	Aerosols, flammable
· DOT	1950 Aerosols, ENVIRONMENTALLY HAZARDOUS
· TDG	AEROSOLS (CHLOROBUTANES, 3-methylhexane), MARINE POLLUTANT
· IMDG	AEROSOLS (CHLOROBUTANES, 3-methylhexane), MARINE POLLUTANT
· IATA	AEROSOLS, flammable
· Transport hazard class(es)	
· DOT	
	
· Class	2.1
· Label	2.1
· TDG (Transport dangerous goods):	
	
· Class	2 5F Gases
· Label	2.1
· IMDG	
	
· Class	2.1
· Label	2.1
· IATA	
	
· Class	2.1
· Label	2.1
· Packing group	
· DOT, TDG, IMDG, IATA	not regulated
· Environmental hazards:	Product contains environmentally hazardous substances: heptane, 3-methylhexane
· Marine pollutant:	Yes
· Special marking (TDG):	Symbol (fish and tree)
· Special marking (TDG):	Symbol (fish and tree)
· Special precautions for user	Warning: Gases
· Danger code (Kemler):	-

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- | | |
|--|--|
| · EMS Number: | F-D,S-U |
| · Segregation groups | Liquid halogenated hydrocarbons |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · DOT | |
| · Remarks: | Special marking with the symbol (fish and tree). |
| · UN "Model Regulation": | UN1950, Aerosols, ENVIRONMENTALLY HAZARDOUS, 2.1 |

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):
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110-82-7 cyclohexane

· TSCA (Toxic Substances Control Act):

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.
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· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive 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.
--

· Carcinogenicity categories

· EPA (Environmental Protection Agency)
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67-64-1	acetone	I
142-82-5	heptane	D
110-82-7	cyclohexane	I

· TLV (Threshold Limit Value established by ACGIH)

67-64-1	acetone	A4
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· 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:

· Technical instructions (air):
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Class	Share in %
NK	87.0

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- **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 MSDS are presented in good faith and are believed to be correct as of the date of this MSDS, 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 MSDS.

- **Department issuing MSDS:** Environment protection department.
- **Creation Date:** 07/24/2014
- **Date of preparation / last revision** 03/11/2015 / 1

· **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)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas: Gases under pressure: Compressed gas

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

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