

Safety Data Sheet

acc. to OSHA HCS

Printing Date 09/08/2014

Revision Number 1

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Trade name: SRI-1220 (CS1220)

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· Hazard pictograms



GHS02 GHS07 GHS08

· Signal word *Danger*

· Hazard statements

*Highly flammable liquid and vapor.**Causes skin irritation.**Causes serious eye irritation.**Suspected of damaging fertility or the unborn child.**May cause damage to organs through prolonged or repeated exposure.**May be fatal if swallowed and enters airways.*

· Precautionary statements

*If medical advice is needed, have product container or label at hand.**Keep out of reach of children.**Read label before use.**Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Use explosion-proof electrical/ventilating/lighting/equipment.**IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 1

Fire = 3

Reactivity = 0

· HMIS-ratings (scale 0 - 4)



HEALTH 1 Health = 1

FIRE 3 Fire = 3

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: consisting of the following components.*

· Dangerous components:

and Non-Dangerous Components:

110-54-3	<i>n</i> -hexane	5-20%
67-64-1	acetone	5-20%

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		(Contd. of page 2)
108-88-3	toluene	5-20%
110-82-7	cyclohexane	2.5-10%
78-93-3	methyl ethyl ketone	2.5-10%
	TSRN1397250002-5294P	na%
	TSRN1397250002-5594P	na%

4 First-aid measures

- *Description of first aid measures*
- *After inhalation:*
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- *After skin contact:*
Wipe excess from skin.
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:*
Rinse out mouth with water. Drink 1 - 2 glasses of water but DO NOT induce vomiting. Do not give liquids to a drowsy, convulsing or unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Call a doctor immediately.
- *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* Use water spray to cool fire exposed containers.
- *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 to enter sewers/ surface or ground water.
- *Methods and material for containment and cleaning up:*
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste in accordance with federal state and local regulations.
Ensure adequate ventilation.
- *Reference to other sections*
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling**
 Avoid prolonged or repeated contact with skin.
 Avoid contact with eyes.
 Wash thoroughly after handling.
 Open containers in a well ventilated area and avoid breathing headspace vapors.
 Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
 Keep container closed when not in use.
 Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.
- **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.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **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 (5-20%)	
PEL	Long-term value: 1800 mg/m ³ , 500 ppm
REL	Long-term value: 180 mg/m ³ , 50 ppm
TLV	Long-term value: 176 mg/m ³ , 50 ppm Skin; BEI
67-64-1 acetone (5-20%)	
PEL	Long-term value: 2400 mg/m ³ , 1000 ppm
REL	Long-term value: 590 mg/m ³ , 250 ppm
TLV	Short-term value: (1782) NIC-1187 mg/m ³ , (750) NIC-500 ppm Long-term value: (1188) NIC-594 mg/m ³ , (500) NIC-250 ppm BEI
108-88-3 toluene (5-20%)	
PEL	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm
TLV	Long-term value: 75 mg/m ³ , 20 ppm BEI
110-82-7 cyclohexane (2.5-10%)	
PEL	Long-term value: 1050 mg/m ³ , 300 ppm

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REL	Long-term value: 1050 mg/m ³ , 300 ppm
TLV	Long-term value: 344 mg/m ³ , 100 ppm
78-93-3 methyl ethyl ketone (2.5-10%)	
PEL	Long-term value: 590 mg/m ³ , 200 ppm
REL	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm
TLV	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm
BEI	
Ingredients with biological limit values:	
110-54-3 n-hexane (5-20%)	
BEI	0.4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2.5-Hexanedione without hydrolysis
67-64-1 acetone (5-20%)	
BEI	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
108-88-3 toluene (5-20%)	
BEI	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene
	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene
	0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)
78-93-3 methyl ethyl ketone (2.5-10%)	
BEI	2 mg/L Medium: urine Time: end of shift Parameter: MEK

· **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 and skin.

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· **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.

· **Material of gloves**

Nitrile rubber, NBR

Chloroprene rubber, CR

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.

· **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:	Not determined.
Odor:	Characteristic
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point:	Undetermined.
Boiling point:	55 °C (131 °F)

· **Flash point:** -26 °C (-15 °F)

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

· **Ignition temperature:** 240 °C (464 °F)

· **Decomposition temperature:** Not determined.

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

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

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· **Flammable limits:**

Lower: 1.2 Vol %
Upper: 13.0 Vol %

· **Vapor pressure at 20 °C (68 °F):** 233 hPa (175 mm Hg)· **Specific gravity at 20 °C (68 °F):** 0.819 g/cm³ (6.835 lbs/gal)· **Relative density** Not determined.· **Vapour density** Not determined.· **Evaporation rate** Not determined.· **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:**

VOC (Per EPA 24) not available GMS/L

Solids content: not available

· **Other information**

Pounds Per Gallon: 6.84

Lbs VOC/Gallon [less water. less exempts] 4.79

Grams VOC/Liter [less water. less exempts] 574.10

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, hot surfaces, ignition sources.· **Incompatible materials:**

Reacts with acids.

Reacts with oxidizing agents.

Reacts with alkali (lyes).

Reacts with reducing agents.

copper and copper alloys.

· **Hazardous decomposition products:**

Carbon monoxide and carbon dioxide

Hydrogen chloride (HCl)

11 Toxicological information

· **Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:**

108-88-3 toluene

Oral LD50 5000 mg/kg (rat)

Dermal LD50 12124 mg/kg (rabbit)

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Inhalative	LC50/4 h	5320 mg/l (mouse)
110-82-7 cyclohexane		
Oral	LD50	12705 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Skin irritant.
- **on the eye:**
Irritating effect.
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:
Irritant

- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
108-88-3	toluene	3

- **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.
- **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.
- **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 be specially treated adhering to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

· UN-Number

· DOT, ADR, IMDG, LATA

UN1133

· UN proper shipping name

· DOT

Adhesives

· ADR

1133 Adhesives, ENVIRONMENTALLY HAZARDOUS

· IMDG

ADHESIVES (HEXANES, CYCLOHEXANE), MARINE

POLLUTANT

· LATA

ADHESIVES

· Transport hazard class(es)

· DOT



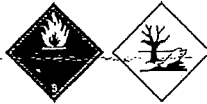
· Class

3 Flammable liquids

· Label

3

· ADR, IMDG



· Class

3 Flammable liquids

· Label

3

· LATA



· Class

3 Flammable liquids

· Label

3

· Packing group

· DOT, ADR, IMDG, LATA

II

· Environmental hazards:

Product contains environmentally hazardous substances:

cyclohexane

· Marine pollutant:

Yes

Symbol (fish and tree)

· Special marking (ADR):

Symbol (fish and tree)

· Special precautions for user

Warning: Flammable liquids

· Danger code (Kemler):

33

· EMS Number:

F-E,S-D

· Transport in bulk according to Annex II of
MARPOL 73/78 and the IBC Code

Not applicable.

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· **Transport/Additional information:**

· **DOT**

· **Remarks:**

Special marking with the symbol (fish and tree).

· **UN "Model Regulation":**

UN1133, Adhesives, ENVIRONMENTALLY HAZARDOUS, 3, II

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

108-88-3 toluene

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.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

108-88-3 toluene

· **(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)**

110-54-3 n-hexane

II

67-64-1 acetone

I

108-88-3 toluene

II

110-82-7 cyclohexane

I

78-93-3 methyl ethyl ketone

I

· **TLV (Threshold Limit Value established by ACGIH)**

67-64-1 acetone

A4

108-88-3 toluene

A4

· **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.**

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· *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:** 09/08/2014

· **Date of preparation / last revision** 09/08/2014 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

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

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

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

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

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