Material Safety Data Sheet

TETRA HYDRO FURAN (RXSOL-19-1445-210)

1. Product and Company Identifaction

Product Name	RXSOL-19-1445
Product Type	TETRA HYDRO FURAN

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
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2. Composition / informationon ingredients

Chemical Name	CAS Number	EC Number	Index number
tetrahydrofuran	109-99-9	203-726-8	603-025-00-0

3. Hazards Identification

Hazard description:
Information concerning particular hazards for human and environment:
R 11 Highly flammable.
R 19 May form explosive peroxides.
R 36/37 Irritating to eyes and respiratory system.

4. First Aid Measures

After inhalation	Supply fresh air; consult doctor in case of complaints.
After skin contact	Generally the product does not irritate the skin.
After eye contact	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing	If symptoms persist consult doctor.

5. Fire-fighting Measures

Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Protective equipment: No special measures required.

6. Accidental Release Measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
Measures for environmental protection: 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. Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
Measures for cleaning/collecting: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).Ensure adequate ventilation.

7. Handling and Storage

Handling:
Information for safe handling: Open and handle receptacle with care.
Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Storage:
Requirements to be met by storerooms and receptacles: Store in a cool location.
Information about storage in one common storage facility: Not required.
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

8. Exposure controls and personal protection

Additional information about design of technical facilities: No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:

109-99-9 tetrahydrofuran

PEL (USA)	590 mg/m³, 200 ppm Short-term value: 735 mg/m³, 250 ppm Long-term value: 590 mg/m³, 200 ppm
REL (USA)	Short-term value: 295 mg/m³, 100 ppm Long-term value: 147 mg/m³, 50 ppm Skin
TLV (USA)	Short-term value: 300 mg/m³, 100 ppm Long-term value: 150 mg/m³, 50 ppm Skin
WEL (Great Britain)	Short-term value: 300 mg/m³, 100 ppm Long-term value: 150 mg/m³, 50 ppm Sk

Additional information: The lists valid during the making were used as basis.
Personal protective equipment:
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.Avoid contact with the eyes and skin.
Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure useself-contained respiratory protective device.
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:
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: Tightly sealed goggles

9. Physical and chemical properties

General Information

Form	Fluid

Colour	Colourless
Odour	Ether-like
Change in condition	
Melting point/Melting range	-108.5°C
Boiling point/Boiling range	65.5°C
Flash point	-21 - ca°C
Ignition temperature	230°C
Danger of explosion	May form explosive peroxides.
Explosion limits:	
Lower	1.5 Vol %
Upper	12 Vol %
Vapour pressure at 20°C	200 hPa
Density at 20°C	0.8892 g/cm³
Solubility in / Miscibility with water	Fully miscible.

10. Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Dangerous reactions No dangerous reactions known.
Dangerous decomposition products: No dangerous decomposition products known.

11. Toxicological information

Acute toxicity:

LD/LC50 values relevant for classification:

Oral	LD50	2500 mg/kg (rat)
Primary irritant effect:		
on the skin	No irritant effect.	
on the eye	No irritating effect.	
Sensitization	No sensitizing effects known.	

12. Ecological information

General notes: Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. Disposal considerations

Product:
Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. Transport information

Land transport ADR/RID (cross-border)

ADR/RID class	3 Flammable liquids.
Danger code (Kemler)	33
UN-Number	2056
Packaging group	II
Hazard label	3
Description of goods	2056 TETRAHYDROFURAN

Maritime transport IMDG

IMDG Class	3
UN Number	2056
Label	3
Packaging group	II
EMS Number	F-A,S-D
Marine pollutant	No
Proper shipping name	TETRAHYDROFURAN

Air transport ICAO-TI and IATA-DGR

ICAO/IATA Class	3
UN/ID Number	2056
Label	3
Packaging group	II
Proper shipping name	TETRAHYDROFURAN

15. Regulatory information

• Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
• Risk phrases:
11 Highly flammable.
19 May form explosive peroxides.
36/37 Irritating to eyes and respiratory system.
• Safety phrases:
2 Keep out of the reach of children.
16 Keep away from sources of ignition - No smoking.
29 Do not empty into drains.
33 Take precautionary measures against static discharges.

16. Other information

This information is based on our present knowledge.However, this shall not constitute a guarantee for anys pecific product features and shall not establish a legally valid contractual relationship.

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