

## 1 Identification

**\*Product identifier**

**\*Trade name:** TAN TITRATION SOLVENT : ASTM D664

**\*Article number:** TANSOLVF

**\*Application of the substance / the mixture** Laboratory chemicals

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

**\*Manufacturer/Supplier:**  
Reagecon Diagnostics Ltd.  
Shannon Free Zone,  
Shannon,  
Co. Clare,  
Ireland.  
Tel +353 61 472622  
Fax +353 61 472642

**\*Information department:** sds@reagecon.ie

**\*Emergency telephone number:** EMERGENCY CONTACT NUMBER: 00-353-87-8395527

## 2 Hazard(s) identification

**\*Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

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.



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.

**\*Label elements**

**\*GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**\*Hazard pictograms**



GHS02



GHS07



GHS08

**\*Signal word** Danger

**\*Hazard-determining components of labeling:**  
TOLUENE

# Safety Data Sheet

## acc. to OSHA HCS

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Reviewed on 11/06/2015

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PROPAN-2-OL AR.

**\*Hazard statements**

Highly flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

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.

**\*Precautionary statements**

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

If on skin (or hair): 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

**\*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:**

67-63-0	PROPAN-2-OL AR.	25-50%
108-88-3	TOLUENE	25-50%

**\*Non- Hazardous Components**

PURIFIED WATER	≤ 2.5%
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**\*Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First-aid measures

**\*Description of first aid measures****\*After inhalation:** In case of unconsciousness place patient stably in side position for transportation.**\*After skin contact:** Immediately wash with water and soap and rinse thoroughly.**\*After eye contact:**

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

**\*After swallowing:**

Do not induce vomiting; immediately call for medical help.

Seek immediate medical advice.

**\*Information for doctor:****\*Most important symptoms and effects, both acute and delayed** No further relevant information available.

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**\*Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**\*Extinguishing media**

**\*Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**\*Special hazards arising from the substance or mixture** No further relevant information available.

**\*Advice for firefighters**

**\*Protective equipment:** No special measures required.

### 6 Accidental release measures

**\*Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

**\*Environmental precautions:**

Prevent seepage into sewage system, workpits and cellars.

Dilute with plenty of water.

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 contaminated material as waste according to item 13.

Ensure adequate ventilation.

**\*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**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**\*Information about protection against explosions and fires:**

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.

**\*Information about storage in one common storage facility:** Not required.

**\*Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

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

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### 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:**

**67-63-0 PROPAN-2-OL AR.**

PEL	Long-term value: 980 mg/m <sup>3</sup> , 400 ppm
REL	Short-term value: 1225 mg/m <sup>3</sup> , 500 ppm Long-term value: 980 mg/m <sup>3</sup> , 400 ppm
TLV	Short-term value: 984 mg/m <sup>3</sup> , 400 ppm Long-term value: 492 mg/m <sup>3</sup> , 200 ppm BEI

**108-88-3 TOLUENE**

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 <sup>3</sup> , 150 ppm Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
TLV	Long-term value: 75 mg/m <sup>3</sup> , 20 ppm BEI

**\*Ingredients with biological limit values:**

**67-63-0 PROPAN-2-OL AR.**

BEI	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
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**108-88-3 TOLUENE**

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)

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

**\*Exposure controls**

**\*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 and skin.

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**\*Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Suitable respiratory protective device recommended.

**\*Protection of hands:**

Protective gloves

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

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. 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.

Fluorocarbon rubber (Viton)

Nitrile rubber, NBR

**\*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

**\*Information on basic physical and chemical properties****\*General Information****\*Appearance:**

<b>Form:</b>	Fluid
<b>Color:</b>	According to product specification
<b>*Odor:</b>	Characteristic
<b>*Odour threshold:</b>	Not determined.

**\*pH-value:** Not determined.

**\*Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	82 °C (180 °F)

**\*Flash point:** 13 °C (55 °F)

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

**\*Ignition temperature:** 425 °C (797 °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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**\*Explosion limits:**

**Lower:** 1.2 Vol %  
**Upper:** 12.0 Vol %

**\*Vapor pressure at 20 °C (68 °F):** 43 hPa (32 mm Hg)

**\*Density:** Not determined.  
**\*Relative density** Not determined.  
**\*Vapour density** Not determined.  
**\*Evaporation rate** Not determined.

**\*Solubility in / Miscibility with Water:** Fully miscible.

**\*Partition coefficient (n-octanol/water):** Not determined.

**\*Viscosity:**  
**Dynamic:** Not determined.  
**Kinematic:** Not determined.

**\*Solvent content:**  
**Organic solvents:** 99.5 %  
**Water:** 0.5 %

**Solids content:** 45.0 %  
**\*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** No further relevant information available.
- \*Incompatible materials:** No further relevant information available.
- \*Hazardous decomposition products:** No dangerous decomposition products known.

## 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)
Inhalative	LC50/4 h	5320 mg/l (mouse)

**\*Primary irritant effect:**

**\*on the skin:** Irritant to skin and mucous membranes.

**\*on the eye:** Irritating effect.

**\*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 categories****\*IARC (International Agency for Research on Cancer)**

67-63-0	PROPAN-2-OL AR.	3
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.**\*Behavior in environmental systems:****\*Bioaccumulative potential** No further relevant information available.**\*Mobility in soil** No further relevant information available.**\*Additional ecological information:****\*General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**\*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.

**\*Uncleaned packagings:****\*Recommendation:** Disposal must be made according to official regulations.**\*Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

**\*UN-Number****\*DOT, ADR, IMDG, IATA** UN1219**\*UN proper shipping name**

**\*DOT** Isopropanol (Isopropyl alcohol)  
**\*ADR** 1219 ISOPROPANOL (ISOPROPYL ALCOHOL)  
**\*IMDG, IATA** ISOPROPANOL (ISOPROPYL ALCOHOL)

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\*Transport hazard class(es)

\*DOT



\*Class

3 Flammable liquids

\*Label

3

\*ADR, IMDG, IATA



\*Class

3 Flammable liquids

\*Label

3

\*Packing group

\*DOT, ADR, IMDG, IATA

II

\*Environmental hazards:

\*Marine pollutant:

No

\*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  
MARPOL73/78 and the IBC Code

Not applicable.

\*UN "Model Regulation":

UN 1219 ISOPROPANOL, 3, II, (D/E)

## 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.

\*SARA Section 313 (specific toxic chemical listings)

67-63-0 PROPAN-2-OL AR.

108-88-3 TOLUENE

\*TSCA (Toxic Substances Control Act)

All ingredients are listed.

\*Prop 65 - Chemicals known to cause cancer

None of the ingredients is listed.

\*Carcinogenicity categories

\*EPA (Environmental Protection Agency)

108-88-3 TOLUENE

II

\*TLV (Threshold Limit Value established by ACGIH)

67-63-0 PROPAN-2-OL AR.

A4

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108-88-3 TOLUENE

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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.

**\*GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**\*Hazard pictograms**


GHS02 GHS07 GHS08

**\*Signal word** *Danger*
**\*Hazard-determining components of labeling:**

TOLUENE

PROPAN-2-OL AR.

**\*Hazard statements**

Highly flammable liquid and vapor.

Causes skin irritation.

Causes serious eye irritation.

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.

**\*Precautionary statements**

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

If on skin (or hair): 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.

**\*National regulations:**
**\*Technical instructions (air):**

Class	Share in %
Wasser	0.5
NK	99.5

**\*Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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

## 16 Other information

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

**\*Department issuing SDS:** Health and Safety

**\*Contact:** sds@reagecon.ie

**\*Date of preparation / last revision** 11/06/2015 / 1

**\*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)

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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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
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 SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2  
Asp. Tox. 1: Aspiration hazard, Hazard Category 1

US