

## **astraidiagnostics** Jessner's Solution, Modified

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 20 DEC 2022

## **SECTION 1: Identification**

Identification

Product form : Mixture

Product name : Jessner's Solution, Modified

Product code 3385M-04

Recommended use and restrictions on use

Use of the substance/mixture : For laboratory and manufacturing use only.

Recommended use : Laboratory chemicals

Restrictions on use : Not for food, drug or household use

**Supplier** 

Astral Diagnostics Inc.

Logan Township NJ 08085 - United States

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800-441-0366 Technical Service; Monday-Friday: 8:00 AM-5:00 PM, Eastern US Time

www.ethosbiosciences.com

**Emergency telephone number** 

: 800-424-9300 CHEMTREC (USA) -- 24 Hours/Day, 7 Days/Week Emergency number

## SECTION 2: Hazard(s) identification

#### Classification of the substance or mixture

## **GHS US classification**

Flammable liquids, Category 2 H225 Highly flammable liquid and vapor

Acute toxicity (oral) ,Category 3 H301 Toxic if swallowed Acute toxicity (dermal), Category 3 H311 Toxic in contact with skin

Skin corrosion/irritation, Category 1C H314 Causes severe skin burns and eye damage

Serious eye damage/eye irritation, Category 1 H318 Causes serious eye damage Specific target organ toxicity, single exposure; Category 3 H335 May cause respiratory irritation

Specific target organ toxicity, single exposure; Category 1 H370 Causes damage to organs (central nervous system, optic nerve)

Full text of H statements : see section 16

## GHS Label elements, including precautionary statements

### **GHS US labeling**

Hazard pictograms (GHS US)









Signal word (GHS US) : Danger

Hazard statements (GHS US) : H225 - Highly flammable liquid and vapor

H301 - Toxic if swallowed H311 - Toxic in contact with skin

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage H335 - May cause respiratory irritation

H370 - Causes damage to organs (central nervous system, optic nerve)

Precautionary statements (GHS US) : P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical, ventilating, lighting equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P260 - Do not breathe mist, vapors, spray.

P264+P265 - Wash exposed skin thoroughly after handling. Do not touch eyes.

P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

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P301+P316 - IF SWALLOWED: Get emergency medical help immediately. P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P302+P361+P354 - IF ON SKIN: Take off Immediately all contaminated clothing.

Immediately rinse with water for several minutes.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P354+P338 - IF IN EYES: Immediately rinse with water for several minutes.

Remove contact lenses if present and easy to do. Continue rinsing.

P308+P313 - If exposed or concerned: Get emergency medical help immediately.

P361+P364 - Take off immediately all contaminated clothing and wash it before reuse. P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry

extinguishing powder to extinguish

P403+P235 - Store in a well-ventilated place. Keep cool.

P405 - Store locked up.

P501 - Dispose of contents/container to comply with local, state and federal regulations.

#### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification

: None under normal conditions

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Ethanol	(CAS-No.) 64-17-5	50 (v/v)	Flam. Liq. 2, H225
Isopropanol (2-Propanol)	(CAS-No.) 67-63-0	< 6 (v/v)	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H335
Methanol	(CAS-No.) 67-56-1	< 3 (v/v)	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
Citric Acid	(CAS-No.) 77-92-9	17 (w/v)	Eye Irrit. 2A, H319
Lactic Acid	(CAS-No.) 50-21-5	17 (w/v)	Skin Corr. 1C, H314 Eye Dam. 1, H318
Salicylic Acid	(CAS-No.) 69-72-7	8 (w/v)	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

Full text of hazard classes and H-statements : see section 16

## **SECTION 4: First-aid measures**

## 4.1. Description of first aid measures

First-aid measures general : Never give

: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get

medical advice/attention. Call a POISON CENTER or doctor/physician.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately

call a poison center or doctor/physician.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

Immediately call a poison center or doctor/physician.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

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#### 4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and

symptoms

: Based on available data, the classification criteria are not met.

Symptoms/effects : Causes severe skin burns and eye damage.

Causes damage to organs.

Symptoms/effects after skin contact : Caustic burns/corrosion of the skin. Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Nausea. Vomiting. Dizziness. Diarrhea. Central nervous system depression.

Chronic symptoms : Enlargement/affection of the liver. Kidney disorders.

#### 4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

## **SECTION 5: Fire-fighting measures**

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

#### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No

smoking.

## 6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Protective clothing. Gloves. Face-shield.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing mist, Vapors, spray.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

## 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect

spillage. Store away from other materials.

#### 6.4. Reference to other sections

See section 8. Exposure controls and personal protection.

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## **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No naked lights. No smoking. Use only non-sparking tools. Do not breathe mist, vapors, spray. Obtain special instructions before use. Do not handle until all safety precautions

have been read and understood.

Hygiene measures : Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

## 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond

container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/...

equipment. Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources,

Ignition sources, incompatible materials. Keep in fireproof place. Keep container tightly closed.

Incompatible products : Strong bases. Strong oxidizers.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

## **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

Jessner's Solution, Modified		
No additional information available		
Ethanol (64-17-5)		
USA - ACGIH - Occupational Exposure Limits		
Local name	Ethanol	
ACGIH STEL (ppm)	1000 ppm	
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)	
Regulatory reference	ACGIH 2020	
USA - OSHA - Occupational Exposure Limits		
Local name	Ethyl alcohol (Ethanol)	
OSHA PEL (TWA) (mg/m³)	1900 mg/m³	
OSHA PEL (TWA) (ppm)	1000 ppm	
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1	
USA - IDLH - Occupational Exposure Limits		
US IDLH (ppm)	3300 ppm	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL (TWA) (mg/m³)	1900 mg/m³	
NIOSH REL (TWA) [ppm]	1000 ppm	

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Methanol (67-56-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Methanol
ACGIH TWA (ppm)	200 ppm
ACGIH STEL (ppm)	250 ppm
Remark (ACGIH)	TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI
Regulatory reference	ACGIH 2020
USA - ACGIH - Biological Exposure Indices	
Local name	METHANOL
Biological Exposure Indices (BEI)	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Limits	
Local name	Methyl alcohol
OSHA PEL (TWA) (mg/m³)	260 mg/m³
OSHA PEL (TWA) (ppm)	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
US IDLH (ppm)	6000 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA) (mg/m³)	250 mg/m³
NIOSH REL (TWA) [ppm]	200 ppm
NIOSH REL (STEL) (mg/m³)	325 mg/m³
NIOSH REL (STEL) [ppm]	250 ppm
Remark (NIOSH)	Skin
Isopropyl Alcohol (2-Propanol) (67-63-0)	On the second se
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Propanol
	·
ACCILLETEL (npm)	200 ppm
ACGIH STEL (ppm)	400 ppm
Remark (ACGIH)	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2020
USA - ACGIH - Biological Exposure Indices	
Local name	2-PROPANOL
Biological Exposure Indices (BEI)	40 mg/l Parameter: Acetone - Medium: urine - Sampling time: End of shift at end of workweek - Notations: B, Ns
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Limits	
Local name	Isopropyl alcohol
OSHA PEL (TWA) (mg/m³)	980 mg/m³
OSHA PEL (TWA) (ppm)	400 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
US IDLH (ppm)	2000 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA) (mg/m³)	980 mg/m³
NIOSH REL (TWA) [ppm]	400 ppm
NIOSH REL (STEL) (mg/m³)	1225 mg/m³
NIOSH REL (STEL) [ppm]	1225 mg/m

## 8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

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## 8.3. Individual protection measures/Personal protective equipment

## Personal protective equipment:

Safety glasses. Gloves. High gas/vapor concentration: APR respirator fitted with organic vapor cartridge. Chemical resistant apron.

#### Hand protection:

Wear protective gloves.

## Eye protection:

Chemical splash goggles or safety glasses + face shield

#### Skin and body protection:

Wear suitable protective clothing

## Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

## Personal protective equipment symbol(s):









## Other information:

Do not eat, drink or smoke during use.

## **SECTION 9: Physical and chemical properties**

9.1.

Physical state : Liquid

Color : Clear, colorless to slightly yellow Odor : Alcohol odor; characteristic odor

Odor threshold : No data available pH : No data available Melting point : No data available Freezing point : No data available Boiling point : No data available Flash point : No data available Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas) : Highly flammable liquid and vapor.

Vapor pressure : No data available Relative vapor density at 20 °C : No data available Relative density : No data available Solubility : Soluble in water. Log Pow : No data available Auto-ignition temperature : No data available Decomposition temperature : No data available : No data available Viscosity, kinematic Viscosity, dynamic : No data available **Explosion limits** : No data available : No data available Explosive properties : No data available Oxidizing properties

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#### 9.2. Other information

No additional information available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Thermal decomposition may generate: Corrosive vapors.

## 10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

#### 10.3. Possibility of hazardous reactions

Reacts violently with (some) bases: release of heat.

## 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

#### 10.5. Incompatible materials

Strong oxidizers. Strong bases. Ammonia.

## 10.6. Hazardous decomposition products

Hydrogen chloride. Carbon monoxide. Carbon dioxide. May release flammable gases. Thermal decomposition may generate: Corrosive vapors.

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Ethanol (64-17-5)		
LD50 oral rat	10740 mg/kg (Rat; Experimental value,Rat; Experimental value)	
LD50 dermal rabbit	> 15800 mg/kg body weight (Rabbit, Experimental value, Dermal)	
LC50 Inhalation - Rat	125 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapors), 14 day(s))	
ATE US (oral)	10740 mg/kg body weight	
Methanol (67-56-1)		
LD50 oral rat	1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, Aqueous solution, Oral, 7 day(s))	
LC50 Inhalation - Rat	128 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapors))	
ATE US (oral)	100 mg/kg body weight	
ATE US (dermal)	300 mg/kg body weight	
ATE US (gases)	700 ppmV/4h	
ATE US (vapors)	3 mg/l/4h	
ATE US (dust, mist)	0.5 mg/l/4h	
Isopropyl Alcohol (2-Propanol) (67-63-0)		
LD50 oral rat	5840 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 14 day(s))	
LD50 dermal rabbit	12882 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value, Converted value, Dermal, 14 day(s))	
LC50 Inhalation - Rat [ppm]	> 10000 ppm (Equivalent or similar to OECD 403, 6 h, Rat, Male / female, Experimental value, Inhalation (vapors), 14 day(s))	
ATE US (oral)	5840 mg/kg body weight	
ATE US (dermal)	16400 mg/kg body weight	
Water (7732-18-5)		
LD50 oral rat	≥ 90000 mg/kg	
ATE US (oral)	90000 mg/kg bodyweight	

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Citric Acid (77-92-9)	
LD50 oral rat	5400 mg/kg
ATE US (oral)	5400 mg/kg body weight
Lactic Acid (50-21-5)	
LD50 oral rat	3543 mg/kg
LD50 dermal rabbit	>2000 mg/kg (rabbit)
Salicylic Acid (69-72-7)	
LD50 oral mouse	480 mg/kg
LC50 Inhalation - Rat [ppm]	900 mg/m <sup>3</sup> 1 hours (rat); acute toxicity of dust
Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: No information available
STOT-single exposure	: May cause respiratory irritation. Causes damage to organs (central nervous system, optic nerve).
Methanol (67-56-1)	
STOT-single exposure	Causes damage to organs (liver, kidneys, central nervous system, optic nerve) (Dermal, oral).
Isopropyl Alcohol (2-Propanol) (67-63-0)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Potential Adverse human health effects and	: Based on available data, the classification criteria are not met. Harmful if inhaled.
symptoms	
Symptoms/effects after inhalation	: May cause respiratory irritation. Danger of serious damage to health by prolonged exposure through inhalation.
Symptoms/effects after eye contact	: Eye irritation. Causes serious eye irritation.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Nausea. Vomiting. Dizziness. Diarrhea. Central nervous system depression.
Chronic symptoms	: Enlargement/affection of the liver. Kidney disorders.

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## **SECTION 12: Ecological information**

## 12.1. Toxicity

Ethanol (64-17-5)		
LC50 fish 1	15300 mg/l (US EPA, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)	
Methanol (67-56-1)		
LC50 fish 1	15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)	
EC50 Daphnia 1	18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semistatic system, Fresh water, Experimental value, Locomotor effect)	
Isopropyl Alcohol (2-Propanol) (67-63-0)		
LC50 fish 1	9640 – 10000 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)	
Citric Acid (77-92-9)		
LC50 fish 1	440 mg/l	
EC50 Daphnia 1	1534 mg/l	

## 12.2. Persistence and degradability

Toronocomos and dogradability		
Jessner's Solution, Modified		
Persistence and degradability	Not established.	
Ethanol (64-17-5)		
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	0.8 – 0.967 g O₂/g substance	
Chemical oxygen demand (COD)	1.7 g O₂/g substance	
ThOD	2.1 g O₂/g substance	
BOD (% of ThOD)	0.43	
Methanol (67-56-1)		
Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	0.6 – 1.12 g O₂/g substance	
Chemical oxygen demand (COD)	1.42 g O₂/g substance	
ThOD	1.5 g O₂/g substance	
Isopropyl Alcohol (2-Propanol) (67-63-0)		
Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	1.19 g O₂/g substance	
Chemical oxygen demand (COD)	2.23 g O₂/g substance	
ThOD	2.4 g O₂/g substance	

## 12.3. Bioaccumulative potential

Jessner's Solution, Modified		
Bioaccumulative potential	Not established.	
Ethanol (64-17-5)		
BCF fish 1	1 (Other, 72 h, Cyprinus carpio, Static system, Fresh water, Read-across)	
Log Pow	-0.31 (Experimental value)	
Bioaccumulative potential	Not bioaccumulative.	
Lactic Acid (50-21-5)		
Log Pow	-0.7	
Bioaccumulative potential	Not established.	

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Methanol (67-56-1)		
BCF fish 1	1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)	
Log Pow	-0.77 (Experimental value)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
Isopropyl Alcohol (2-Propanol) (67-63-0)		
Log Pow	0.05 (Weight of evidence approach, 25 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	

#### 12.4. Mobility in soil

Ethanol (64-17-5)		
Surface tension	22.31 mN/m (20 °C, 100 %)	
Log Koc	0.2 (log Koc, Experimental value)	
Ecology - soil	Highly mobile in soil.	
Methanol (67-56-1)		
Surface tension	No data available in the literature	
Log Koc	-0.89 – -0.21 (log Koc, Calculated value)	
Ecology - soil	Highly mobile in soil.	
Isopropyl Alcohol (2-Propanol) (67-63-0)		
Surface tension	No data available (test not performed)	
Ecology - soil	Highly mobile in soil.	

## 12.5. Other adverse effects

Other information : Avoid release to the environment.

## **SECTION 13: Disposal considerations**

#### 13.1. Disposal methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to comply with local, state and federal regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment.

## **SECTION 14: Transport information**

#### **Department of Transportation (DOT)**

In accordance with DOT

Transport document description : UN1170 Ethanol solutions, 3, II

UN-No.(DOT) : UN1170

Proper Shipping Name (DOT) : Ethanol solutions

Transport hazard class(es) (DOT) Packing : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

group (DOT) : II - Medium Danger

Hazard labels (DOT) : 3 - Flammable liquid

FLAMMABLE LIQUID

DOT Packaging Non Bulk (49 CFR 173.xxx)

DOT Packaging Bulk (49 CFR 173.xxx)

DOT Special Provisions (49 CFR 172.102)

202 242

: 24 - Alcoholic beverages containing more than 70 percent alcohol by volume must be transported as materials in Packing Group II. Alcoholic beverages containing more than 24 percent but not more than 70 percent alcohol by volume must be transported as materials in Packing Group III.

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)

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TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 4b;150
DOT Quantity Limitations Passenger aircraft/rail : 5 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only

(49 CFR 175.75)

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

: 60 L

passenger vessel.

Other information : No supplementary information available.

## **SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

Isopropyl Alcohol (67-63-0)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
SARA Section 311/312 Hazard Classes  Physical hazard - Flammable (gases, aerosols, liquids, or solids)  Health hazard - Serious eye damage or eye irritation  Health hazard - Specific target organ toxicity (single or repeated exposure)		
Methanol (67-56-1)		
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard	

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Fire hazard

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Methanol	CAS-No. 67-56-1
Isopropyl Alcohol (2-Propanol)	CAS-No. 67-63-0

#### 15.2. International regulations

## CANADA

Methanol (67-56-1)
Listed on the Canadian DSL (Domestic Substances List)

### **EU-Regulations**

No additional information available

## **National regulations**

### Ethanol (64-17-5)

Listed on IARC (International Agency for Research on Cancer)

#### 15.3. US State regulations



This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Methanol (67-56-1)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	
No	Yes	No	No		

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## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## **SECTION 16: Other information**

Revision date : 20 DEC 2022

#### Full text of H-phrases:

NFPA reactivity

Hazard Rating

H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H370	Causes damage to organs

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient

temperature conditions.

: 0 - Material that in themselves are normally stable, even

under fire conditions.

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above

100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT

react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : H

H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations SDS US (GHS HazCom 2012)

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