

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Jessner's Solution
Product code:	3385
Supplier:	Astral Diagnostics Inc. 800-441-0366 Technical Service Monday-Friday: 8:00 -5:00 PM
Synonym:	None.
Material uses:	Laboratory Reagent.
Validation date:	01/13/2014
In case of emergency:	800-424-9300 CHEMTREC (USA) 24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

Emergency Overview

Target Organs: Central nervous system, blood, liver, kidneys, and heart

GHS Labeling, Pictograms



Signal word: Warning!

Hazard statement(s):

- H226:** Flammable liquid and vapor (Cat 3)
- H303:** May be harmful if swallowed (Cat 5)
- H315:** Causes skin irritation (Cat 2)
- H320:** Causes eye irritation (Cat 2B)
- H333:** May be harmful if inhaled (Cat 5)
- H412:** Harmful to aquatic life with long lasting effects (Cat 3)

Precautionary statement(s):

- P210:** Keep away from heat/sparks/open flames/hot surfaces, no smoking.
- P233:** Keep container tightly closed
- P260:** Do not breathe fumes or vapors
- P264:** Wash hands thoroughly after handling
- P280:** Wear protective gloves/protective clothing/eye protection/face protection

OSHA Hazards

Flammable liquid, Target Organ Effect, Irritant, Toxic by skin absorption, Carcinogen

GHS Classification

Flammable liquids (Category 3), Skin irritation (Category 2), Eye irritation (Category 2B)

NFPA

HMIS Classification

Health Hazard: 1
Fire: 3
Reactivity: 0

Health Hazard: 1
Flammability: 3
Physical hazards: 0

Potential Health Effects

Inhalation - Toxic if inhaled. Causes respiratory tract irritation.

Skin - Causes skin irritation, peeling

Eyes - Causes eye irritation.

Ingestion - May be toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% v/v
Ethanol	64-17-5	~81
Isopropanol	67-63-0	~ 4
Lactic Acid	50-21-5	14
Salicylic Acid	69-72-7	14 w/v
Resorcinol	108-46-3	14 w/v

4. FIRST AID MEASURES

- Eye contact:** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact:** In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion:** Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flammability of the product: Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst with the risk of a subsequent explosion. Run-off to sewer may create fire or explosion hazard.

Extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable: Do not use water jet.

Special exposure hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal

decomposition products: Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective

equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special remarks on

explosion hazards: Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or

flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

7. HANDLING AND STORAGE

Handling: Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use empty containers to retain product, residue can be hazardous. Do not reuse container.

Storage: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult local authorities for acceptable exposure limits.

Engineering measures: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Component	Source	Type	Value	Note
Ethyl Alcohol	US (OSHA)	TWA	1000 ppm/1,900 mg/mm ³	29 CFR 1910.1000 Table Z-1 Limits for Air Containments
Ethyl Alcohol	US (ACGIH)	STEL	1000 ppm	Upper respiratory tract irritation.
Isopropyl Alcohol	US (ACGIH)	TWA	200 ppm	
Isopropyl Alcohol	US(OSHA)	TWA	400 ppm	
Isopropyl Alcohol	US(ACGIH)	STEL	400 ppm	

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory:	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hands:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: neoprene
Eyes:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles
Skin:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat
Environmental exposure controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	Color:	Clear, slight yellow
Flash Point:	Closed cup: 11.667°C (53°F)	Odor:	Characteristic alcohol
pH:	Not available.	Boiling/condensation point:	Not available.
Melting/freezing point:	Not available.	Relative density:	Not available.
Vapor pressure:	Not available.	Vapor density:	Not available.
Odor threshold:	Not available.	Evaporation rate:	Not available.
VOC:	85% (v/v)		
Solubility:	Soluble in the following materials: water		

10. STABILITY AND REACTIVITY

Chemical stability:	The product is stable.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization:	Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid:	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Materials to avoid:	Highly reactive or incompatible with the following materials: oxidizing materials. Reactive or incompatible with the following materials: metals and acids.
Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not occur.
Conditions of reactivity:	Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials. Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

11. TOXICOLOGICAL INFORMATION

Acute toxicity**Oral LD50**

no data available

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes: no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation: Toxic if inhaled. Causes respiratory tract irritation.

Ingestion: Toxic if swallowed.

Skin: Toxic if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION**Toxicity**

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION**DOT (US)**

UN number: 1993 Class: 3 Packing group: II

Proper shipping name: Flammable liquids, n.o.s. (Ethanol,IPA)

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

UN number: 1993 Class: 3 Packing group: II EMS-No: F-E, S-E

Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol,IPA)

Marine pollutant: No

IATA

UN number: 1993 Class: 3 (6.1) Packing group: II

Proper shipping name: Flammable liquid, n.o.s. (Ethanol, IPA)

TDG

UN No: 1993 Class 3 (6.1) Packing Group II

Proper Shipping Name FLAMMABLE LIQUID, N.O.S. (Ethanol, IPA)

15. REGULATORY INFORMATION

United States

HCS Classification: Flammable liquid

Toxic material

Irritating material

Target organ effects

U.S. Federal regulations: **TSCA 8(a) IUR:** Partial exemption

United States inventory (TSCA 8b): TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Acetone; Ethyl Alcohol; Methanol

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard;

Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health

Hazard.

Ethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

DEA List I Chemicals

(Precursor Chemicals): Not listed

DEA List II Chemicals

(Essential Chemicals): Listed

SARA 313

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

RTK: Ethanol, CAS 64-17-5, CT, MA, MN, NJ, PA

California Prop. 65, This product does not contain a chemical known to the State of California to cause birth defects or other reproductive harm.

CANADA

WHMIS (Canada):

Class B-2: Flammable liquid

Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists:

CEPA Toxic substances: The following components are listed: Volatile

Organic compounds

Canadian ARET: None of the components are listed.

Canadian NPRI: The following components are listed: Ethanol;
Volatile organic compounds

Alberta Designated Substances: None of the components are listed.

Ontario Designated Substances: None of the components are listed.

Quebec Designated Substances: None of the components are listed.

CEPA DSL / CEPA NDSL:

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists:

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: All components are listed or exempted.

Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

16. OTHER INFORMATION

National Fire Protection Association (U.S.A.)



Notice to reader

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral Diagnostics Inc. shall not be liable for any damage resulting from handling of contact with this product.