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DOCUMENT #: F/RPI/QC 7.7.3-02-00	PRODUCT NAME: Safety-Solve Complete Counting Cocktail		RPI ITEM NO: 111177

SECTION 1 - CHEMICAL IDENTIFICATION

PRODUCT NAME: Safety-Solve Complete Counting Cocktail
RPI CATALOG #: 111177
SUPPLIER'S NAME: Research Products International Corp.
SUPPLIERS ADDRESS: 410 N Business Center Drive Mount Prospect, IL 60056
EMERGENCY CONTACT: 1-800-424-9300
OTHER INFORMATION: 847-635-7330

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H226	Flammable liquids	Category 3
H302	Acute toxicity, Oral	Category 4
H304	Aspiration hazard	Category 1
H315	Skin corrosion/irritation	Category 2
H318	Serious eye damage	Category 1
H335	Specific target organ toxicity, single exposure; Respiratory tract irritation	Category 3
H340	Germ cell mutagenicity	Category 1B
H350	Carcinogenicity	Category 1B
H411	Hazardous to the aquatic environment, Long term hazard	Category 2

2.2 GHS Label elements, including Hazard and Precautionary Statement(s) Pictogram



Signal word: Danger
Hazard statement(s)

H226	Flammable liquid and vapour
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation
H340	May cause genetic defects
H350	May causing cancer
H411	Toxic to aquatic life with long lasting effects

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Prevention, Response, Storage and Disposal Precautionary Statement(s)

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood.
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
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling
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.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304	Do NOT induce vomiting.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P321	Specific treatment (see. on this label).
P330	Rinse mouth.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

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P501	Dispose of contents/ container to an approved waste disposal plant.
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SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	EINECS Number	%age
Light Aromatic Solvent Naphtha	64742-95-6	265-199-0	55.0-65.0
Non-Ionic Surfactants	127087-87-0	500-315-8	25.0-35.0
Glycol Ether DPM	34590-94-8	252-104-2	5.0-15.0
Scintillation Fluors	N/A	N/A	< 1.0

SECTION 4 - FIRST-AID MEASURES

4.1 Description of first aid measures

General advice: Consult a doctor and show this safety data sheet.

- i. **If inhaled:** Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
- ii. **In case of skin contact:** Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
- iii. **In case of eye contact:** Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
- iv. **If swallowed:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed: To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

4.3 Indication of immediate medical attention and special treatment needed: Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

5.2 Special hazards arising from the substance or mixture: Toxic vapors may be formed. Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide and unidentified organic and inorganic compounds.

5.3 Precautions for fire-fighters: Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

5.4 Further information: no data available

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

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6.2 Environmental precautions: Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up: Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

6.4 Reference to other sections: For required PPE see section 8. For disposal see section 13.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling:

Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

7.2 Conditions for safe storage, including any incompatibilities: Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Storage class : Flammable liquids.

7.3 Specific end use(s): Use in a laboratory fume hood where possible. Refer to employer's COSHH risk assessment.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Light Aromatic Solvent Naphtha	TWA:50 ppm	None Established	None Established

Component		CAS Number	EINECS Number
Glycol Ether DPM		34590-94-8	252-104-2
Value	Control parameters	Basis	Remarks
TWA	100 ppm	USA. ACGIH Threshold Limit Values (TLV).	Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation Danger of cutaneous absorption
STEL	150 ppm	USA. ACGIH Threshold Limit Values (TLV).	Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation Danger of cutaneous absorption
TWA	100 ppm 600 mg/m ³	USA. ACGIH Threshold Limit Values (TLV).	Potential for dermal absorption
STEL	150 ppm 900 mg/m ³	USA. NIOSH Recommended Exposure Limits	Potential for dermal absorption

- ❖ **ACGIH:** American Conference of Governmental Industrial Hygienists.
- ❖ **OSHA:** Occupational Safety and Health Administration.
- ❖ **NIOSH IDLH:** The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health.

8.2 Exposure Controls

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- i. **Appropriate engineering controls:** Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

8.3 Personal protective equipment

- i. **Eye/face protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- ii. **Skin protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166
- iii. **Body Protection:** Wear appropriate protective clothing. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- iv. **Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
- v. **Control of environmental exposure:** Do not let product enter drains

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid	Vapor Pressure	2.7 mm Hg
Odor	No Data Available	Vapor Density	>4.2
Odor Threshold	No Data Available	Specific Gravity	<1.0
pH	No Data Available	Water Solubility	0.2% @25 °C
Melting / Freezing Point	No Data Available	Partition Coefficient	No Data Available
Initial Boiling Point Range	156-170 °C	Auto-Ignition Temperature	No Data Available
Flash Point	37.8 °C	Decomposition Temperature	No Data Available
Evaporation Rate	0.37	Viscosity	No Data Available
Flammability (Solid, Gas)	No Data Available	Explosive Properties	No Data Available
Upper / Lower Flammability Or Explosive Limits	Upper explosion limit: 6.0 %(V) Lower explosion limit: 0.5 %(V)	Oxidizing Properties	No Data Available

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable under recommended transport or storage conditions.

Conditions to Avoid: Heat, Flames, Sparks. Sources of Ignition, and Incompatibles

Incompatible Materials: Nitric Acid, Sulfuric Acid, Strong Oxidizing Agents.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity

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Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	LD50 Intraperitoneal
Light Aromatic Solvent Naphtha	>14000 mg/kg (Rat)	>2000 mg/kg (Rabbit)	6,000 - 10,000 mg/m ³ -4h(Rat)	750 mg/kg (Mouse)
Non-Ionic Surfactants	960 - 3,980 mg/kg (Rat)	2,000 - 2,991 mg/kg (Rabbit)	Not Listed	Not Listed
Glycol Ether DPM	5,152 mg/kg (Rat)	Not Listed	Not Listed	Not Listed

SECTION 12 - ECOLOGICAL INFORMATION

Eco Toxicity

Component	Toxicity to fish LC50	Toxicity to Daphnia LC50
Light Aromatic Solvent Naphtha	Oncorhynchus mykiss-9,2 mg/L -96h	1.6 % Soluble fraction (D. magna)
Glycol Ether DPM	LC50 - Pimephales promelas (fathead minnow) - > 10,000 mg/l - 96 h	EC50 - Daphnia magna (Water flea) - 1,919 mg/l - 48 h

Component	Toxicity to fish LC50	Toxicity to bacteria IC50
Non-Ionic Surfactants	Pimephales promelas (fathead minnow) - 3.8 - 6.2 mg/l - 96 h	Bacteria - > 1,000 mg/l - 16 h

Mobility

Component	Log Pow
Non-Ionic Surfactants	2.1-3.4

Persistence and degradability/ Bioaccumulative potential: No data available

Results of PBT and vPvB assessment: No data available

Other adverse effects: No data available

Chronic Toxicity: There are no known carcinogenic chemicals in this product

SECTION 13 - DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14 - TRANSPORT INFORMATION

	UN#	Proper Shipping Name	Hazard Class	Packaging Group
DOT	1268	Flammable liquid, N.O.S (Light Aromatic Solvent Naphtha)	3	III

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TDG	1268	Flammable liquid, N.O.S (Light Aromatic Solvent Naphtha)	3	III
IATA	1268	Flammable liquid, N.O.S (Light Aromatic Solvent Naphtha)	3	III
IMDG/IMO	1268	Flammable liquid, N.O.S (Light Aromatic Solvent Naphtha)	3	III

SECTION 15 - REGULATORY INFORMATION

USA FEDERAL REGULATION

SARA 311/312 HAZARDOUS

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release Of Pressure Hazard	Reactive Hazard
Yes	Yes	Yes	No	No

USA Federal Regulation

SARA 313/ Clean Water Act/ Clean Air Act/ TSCA 12(b)/ OSHA/ CERCLA: Not Applicable
California Proposition 65: This product does not contain any Proposition 65 chemicals.

HMIS Rating

Health hazard	Chronic Health Hazard	Flammability	Physical Hazard
2	*	3	0

NFPA Rating

Health Hazard	Fire Hazard	Reactivity Hazard
2	3	0

STATE RIGHT TO KNOW

Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Listed	Listed	Listed	Listed	Listed

US DEPARTMENT OF TRANSPORTATION

REPORTABLE QUANTITY (RQ)	DOT MARINE POLLUTANT	DOT SEVER MARINE POLLUTANT
No	No	No

U.S. DEPARTMENT OF HOMELAND SECURITY: This product does not contain any DHS chemicals.

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

This SDS complies with the requirements of Regulation (EC).

SECTION 16 - OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Research Products International Corp. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. This product is sold for laboratory research product is sold for laboratory research and development purposes use only.