SDS

Safety Data Sheet

1. IDENTIFICATION

Product Identifier: **Regal Custom Glue Mixture**

Product Code(s): CF1155

Synonyms: Mixture.

Recommended Use: For manufacturing, industrial, and laboratory use only. For use as a laboratory reagent.

Uses Advised Against: Not for food, drug, or household use.

Supplier:
Rocky Mountain Reagents, Inc.
4621 Technology Drive, Golden, CO 80403
Phone: (303) 762-0800 Fax: (303) 762-1240

Emergency Phone Number: (800) 255-3924 (CHEM-TEL)

2. HAZARDS IDENTIFICATION

Hazard Classifications:

Acute Toxicity – Oral:	Category 4
Acute Toxicity – Dermal:	Category 4
Skin Corrosion/Irritation:	Category 1A
Eye Damage/Irritation:	Category 1
Carcinogenicity:	Category 2
Toxic to Reproduction:	Category 2
Specific Target Organ Toxicity (Single Exposure):	Category 3
Specific Target Organ Toxicity (Repeated Exposure):	Category 2
Aspiration Hazard:	Category 1

Signal Word: DANGER

Hazard Statements:
Harmful if swallowed.
Harmful in contact with skin.
Causes severe skin burns and serious eye damage.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.

Pictograms:

Precautionary Statements:

Prevention:
Wash thoroughly after handling.
Do not eat, drink, or smoke while using this product.
Wear protective gloves, protective clothing, eye protection, and face protection.
Do not breathe fume, mist, vapor, or spray.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area.

Response:
Immediately call a poison center or doctor.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Wash with plenty of water. Take off immediately all contaminated clothing and wash it before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Get medical attention if you feel unwell.

Storage:
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.

Disposal:
Dispose of contents and container in accordance with local, regional, national, and international regulations.

Hazards Not Otherwise Classified:
May cause mutagenic effects based on animal data.
May be toxic to aquatic life.
Excessive exposure may cause skin or respiratory sensitization and tooth decay.
Exposure to alcohols may enhance the toxic effects of this product.

Toxicity Statement:
Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	Common Name / Synonyms	CAS#	Chemical Formula	% by Weight
Dichloromethane	Methylene Chloride	75-09-2	CH_2Cl_2	48.5
Chloroform	Trichloroform	67-66-3	$CHCl_3$	30.8
Acetic Acid	Ethanoic Acid	64-19-7	$C_2H_4O_2$	20.3
Ethanol	Ethyl Alcohol	64-17-5	C_2H_5OH	< 0.468

Trade Secret Statement:
Not applicable.

4. FIRST AID MEASURES

First Aid Procedures:

Inhalation:
Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious, or corrosive.

Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately if symptoms occur.

Ingestion: Rinse mouth. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately if symptoms occur.

Skin Contact: Wash skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention immediately if symptoms occur.

Eye Contact: Check for and remove contact lenses if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately if symptoms occur.

General Advice: Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that medical personnel and those providing first aid are aware of the material(s) involved and take precautions to protect themselves.

Symptoms and Effects: Irritation, blistering, burns, dizziness, drowsiness, visual disturbances, headache, nervous system effects, nausea, vomiting, decreased motor function, shortness of breath, coughing, unconsciousness, circulatory collapse, cardiovascular effects, skin dryness/redness, jaundice, metabolic acidosis, liver enlargement, abdominal pain, weakness, blindness, bronchitis. Corrosive. Harmful if swallowed, inhaled, absorbed through the skin, or contacted with the eyes. Causes irritation and burns to the eyes, skin, respiratory tract, and gastrointestinal tract. May cause drowsiness, dizziness, or unconsciousness and may affect the blood, brain, eyes, mucous membranes, urinary system, kidneys, liver, and central nervous system. Prolonged or repeated exposure may cause damage to teeth, liver, kidneys, blood, skin, respiratory system, and central nervous system and may also cause dermatitis, mutagenic effects, adverse reproductive effects, skin sensitization, and cancer.

Immediate Medical Care/ Special Treatment: Call a physician or poison control center immediately if you feel unwell or are concerned. Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water spray, dry powder, alcohol resistant foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream, as it may scatter and spread fire.

Hazardous Combustion Products: Carbon oxides, hydrogen chloride, chlorine, phosgene.

Specific Hazards: Excessive thermal conditions may yield hazardous decomposition products listed above.

Special Protective Equipment/ Precautions for Firefighters: As in any fire, wear MSHA/NIOSH approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear. Use water spray to cool unopened containers. Move containers from fire area, if you can do so without risk. In the event of fire and/or explosion, do not breathe product fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Ventilate area of leak or spill. Avoid breathing product fumes. Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Keep upwind. Keep out of low areas. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.

Emergency Procedures: Evacuate surrounding personnel as needed. In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).

Methods for Containment: Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements, or confined areas. Dike the spilled material, where this is possible. Product should not be released to the environment. Contain and recover liquid when possible.

Methods for Cleanup: Absorb spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling: Wear personal protective equipment (see Section 8). Use only in well-ventilated areas. Provide sufficient air exchange and/or exhaust in work areas. Avoid contact with skin, eyes, and clothing. Do not breathe vapors, fumes, or spray mist. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product.

Storage: Store in a cool, dry, ventilated area under inert atmosphere. Store in a segregated and approved area away from incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

Dichloromethane:	ACGIH:	TWA:	50 ppm
	OSHA:	PEL:	25 ppm
		STEL:	125 ppm
Chloroform:	ACGIH:	TWA:	10 ppm
	OSHA:	CEIL:	50 ppm
			240 mg/m^3
Acetic Acid:	ACGIH:	TWA:	10 ppm
		STEL:	15 ppm
	OSHA:	PEL:	10 ppm
	NIOSH:	IDLH:	50 ppm
		TWA:	10 ppm
		STEL:	15 ppm
Ethanol:	ACGIH:	STEL:	1000 ppm
	OSHA:	PEL:	1000 ppm
			1900 mg/m3

Engineering Controls: Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Measures:

Eye/Face Protection: Wear safety glasses with side shields or goggles and a face shield. Maintain approved eye wash station and accessible rinse facilities in work area.

Skin Protection: Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

Respiratory Protection: An air-purifying, NIOSH-approved respirator with appropriate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

Specific Requirements for Personal Protective Equipment: Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Unless otherwise indicated, all properties are given at 25 °C and standard pressure.

Appearance:	Colorless, transparent liquid.
Odor:	Characteristic, sweet, ethereal.
Odor Threshold:	No information found.
Formula Weight:	Mixture.
pH:	No information found.
Melting/Freezing Point:	No information found.
Boiling Point/Range:	> 40 °C
Decomposition Temperature:	No information found.
Flash Point:	Not applicable.
Auto-ignition Temperature:	Not applicable.
Flammability:	Not flammable.
Flammability/Explosive Limits:	Not applicable.
Solubility:	Slightly soluble in water.
Vapor Pressure:	No information found.
Vapor Density:	> 2.1 (Air = 1)
Specific Gravity:	1.4 (Water = 1)
Evaporation Rate:	No information found.
Viscosity:	No information found.
Partition Coefficient (n-octanol/water):	No information found.

10. STABILITY AND REACTIVITY

Reactivity Data: May be corrosive to several materials. See Section 11.

Chemical Stability: Stable under normal conditions. Hygroscopic. Sensitive to light and air.

Conditions to Avoid: Heat, generation of vapors, exposure to light, exposure to air, exposure to moisture, incompatible materials.

Incompatible Materials: Strong oxidizers, metals, strong acids, strong bases, alkalis, amines, polymers, organic materials.

Hazardous Decomposition Products: Carbon oxides, hydrogen chloride, chlorine, phosgene.

Possibility of Hazardous Reactions: May react vigorously, violently, or explosively if exposed to extreme thermal conditions or to the incompatible materials listed above.

Hazardous Polymerization: May cause certain substances to polymerize. Avoid contact with organic materials and non-halogenated polymers.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Inhalation, ingestion, skin contact, eye contact.

Acute Effects: Corrosive. Harmful if swallowed, inhaled, absorbed through the skin, or contacted with the eyes. Causes irritation and burns to the eyes, skin, respiratory tract, and gastrointestinal tract. May cause drowsiness, dizziness, or unconsciousness and may affect the blood, brain, eyes, mucous membranes, urinary system, kidneys, liver, and central nervous system.

Chronic Effects: Prolonged or repeated exposure may cause damage to teeth, liver, kidneys, blood, skin, respiratory system, and central nervous system and may also cause dermatitis, mutagenic effects, adverse reproductive effects, skin sensitization, and cancer.

Toxicological Data:

Dichloromethane: LD_{50} Oral, Rat: 1600 mg/kg
LC_{50} Inhalation, Rat: 88 mg/L 30 m
Causes skin and eye irritation based on animal data.
May cause mutagenic effects based on animal data.

Chloroform: LD_{50} Oral, Rat: 908 mg/kg
LC_{50} Inhalation, Rat: 47.7 mg/L 4 h
Causes skin and eye irritation based on animal data.
May cause reproductive effects based on animal data.

Acetic Acid: LD_{50} Oral, Rat: 3310 mg/kg
LC_{50} Inhalation, Rat: 11.4 mg/L 4 h
LD_{50} Dermal, Rabbit: 1060 mg/kg
May cause reproductive effects based on animal data.

Ethanol: LD_{50} Oral, Rat: 7060 mg/kg
LC_{50} Inhalation, Rat: 124.7 mg/L 4 h

Symptoms of Exposure: Irritation, blistering, burns, dizziness, drowsiness, visual disturbances, headache, nervous system effects, nausea, vomiting, decreased motor function, shortness of breath, coughing, unconsciousness, circulatory collapse, cardiovascular effects, skin dryness/redness,

jaundice, metabolic acidosis, liver enlargement, abdominal pain, weakness, blindness, bronchitis.

Carcinogenic Effects: May cause cancer based on animal and microorganism data.

OSHA HCS: Dichloromethane: Carcinogen
Chloroform: Carcinogen

ACGIH: Chloroform: A3 – Confirmed animal carcinogen with unknown relevance to humans

IARC: Dichloromethane: 2B – Possibly carcinogenic to humans
Chloroform: 2B – Possibly carcinogenic to humans

NTP: Dichloromethane: Reasonably anticipated to be a human carcinogen
Chloroform: Reasonably anticipated to be a human carcinogen

12. ECOLOGICAL INFORMATION

Ecotoxicological Data:

Dichloromethane:	EC_{50}, Water Flea (Daphnia magna):	1682 mg/L 48 h
	LC_{50}, Fathead Minnow (Pimephales promelas):	193 mg/L 96 h
Chloroform:	EC_{50}, Water Flea (Daphnia magna):	28.9 mg/L 48 h
	LC_{50}, Fathead Minnow (Pimephales promelas):	71 mg/L 96 h
	LC_{50}, Rainbow Trout (Oncorhynchus mykiss):	18 mg/L 96 h
Acetic Acid:	EC_{50}, Water Flea (Daphnia magna):	47 mg/L 24 h
	LC_{50}, Fathead Minnow (Pimephales promelas):	88 mg/L 96 h
	LC_{50}, Rainbow Trout (Oncorhynchus mykiss):	> 1000 mg/L 96 h
Ethanol:	EC_{50}, Water Flea (Daphnia magna):	7.7 mg/L 48 h
	LC_{50}, Fathead Minnow (Pimephales promelas):	> 100 mg/L 96 h

Persistence and Degradability: This product is not readily biodegradable. Not expected to bioaccumulate.

Environmental Effects: Toxic to aquatic life. Avoid release to the environment.

13. DISPOSAL INFORMATION

Disposal Instructions: All wastes must be handled in accordance with local, state, and federal regulations. Minimize exposure to product waste (see Section 8). Do not dispose unused waste down drains or into sewers.

Contaminated Packaging: Because emptied containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

Waste Codes: Dichloromethane: U080 (US RCRA Hazardous Waste U List)
Chloroform: U044 (US RCRA Hazardous Waste U List)
Acetic Acid: D002 (Waste Corrosive material, pH ≤ 2 or pH ≥12.5 or corrosive to steel)

14. TRANSPORT INFORMATION

DOT:

UN Number: UN3289

Proper Shipping Name: Toxic liquid, corrosive, inorganic, n.o.s. (Methylene chloride, chloroform, acetic acid)

Hazard Class: 6.1 (8)

Packing Group: II

ERG Number: 154

Environmental Hazard Regulations: Not marine pollutant.

Other Transport Precautions: DOT Reportable Quantity: Dichloromethane: 1000 lb
Chloroform: 10 lb
Acetic Acid: 5000 lb

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the U.S. TSCA Inventory.

U.S. EPCRA (SARA Title III):

Section 302:
Extremely Hazardous Substance: Chloroform
Threshold Planning Quantity: 10,000 lb
Reportable Quantity: 10 lb

Sections 311/312:

Hazard Category	List (Yes/No)
Section 311 – Hazardous Chemical	Yes
Immediate Hazard	Yes
Delayed Hazard	Yes
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No

Section 313:
Component: Chloroform
De Minimis Concentration: 0.1%

CERCLA Reportable Quantities: Dichloromethane: 1000 lb
Chloroform: 10 lb
Acetic Acid: 5000 lb

International Inventories:

Country or Region	Inventory Name	On Inventory (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	N/A
Canada	Domestic Substances List (DSL)	N/A
Canada	Non-Domestic Substances List (NDSL)	N/A
China	Inventory of Existing Chemical Substances in China (IECSC)	N/A
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	N/A
Europe	European List of Notified Chemical Substances (ELINCS)	N/A
Japan	Inventory of Existing and New Chemical Substances (ENCS)	N/A
Korea	Existing Chemicals List (ECL)	N/A
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	N/A

*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s).

16. OTHER INFORMATION

Disclaimer: Rocky Mountain Reagents, Inc. provides the information in this Safety Data Sheet in the belief that it is reliable but assumes no responsibility for its completeness or accuracy. The physical properties reported in this SDS are obtained from literature and do not constitute product specifications. Rocky Mountain Reagents, Inc. makes and gives no representations or warranties with respect to the information contained herein or the product to which it refers, whether express, implied, or statutory, including without limitation, warranties of accuracy, completeness, merchantability, non-infringement, performance, safety, suitability, stability, and fitness for a particular purpose. No warranty against infringement of any patent, copyright or trademark is made or implied. This SDS is intended only as a guide to the appropriate handling of the material by a properly trained person. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. Accordingly, Rocky Mountain Reagents, Inc. assumes no liability whatsoever for the use of or reliance upon this information including results obtained, incidental or consequential damages, or lost profits.

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