
MATERIAL SAFETY DATA SHEET

HELENA LABORATORIES
 1530 Lindbergh Dr./P.O. Box 752
 Beaumont, TX 77704-0752
 USA Toll Free 800-231-5663

DATE PREPARED: 5/24/2011
 REVISION: 4

1. IDENTIFICATION:

PRODUCT NAME: QUICKGEL ALKALINE HEMOGLOBIN KIT

PRODUCT NO.: 3529, 3529T

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2. INGREDIENTS (THE ABOVE KIT CONTAINS THE FOLLOWING ITEMS):

PRODUCT NUMBER	PRODUCT IDENTIFICATION (LABEL NAME)	COMMENTS
552008	QUICKGEL ALKALINE HEMOGLOBIN GEL	NON-HAZARDOUS
551965	REP/SPIFE HEMOLYSATE REAGENT	NON-HAZARDOUS
551151	ACID BLUE STAIN	
	HAZARDOUS INGREDIENT	CAS # %
	ACID BLUE 29	5850-35-1 100% NON-HAZARDOUS
551959	CITRIC ACID DESTAIN	
	HAZARDOUS INGREDIENT	CAS # %
	CITRIC ACID	77-92-9 100% MSDS ATTACHED

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ATTACHED IS THE MSDS FOR THE ABOVE NAMED HAZARDOUS INGREDIENT.

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DATE PREPARED: 5/13/2009
REVISION: 3

1. IDENTIFICATION:

NAME: CITRIC ACID

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2. CHEMICAL COMPOSITION:

Table with 5 columns: CHEMICAL NAME/COMMON NAME, CAS #, %, EXPOSURE LIMITS (OSHA PEL, ACGIH TLV). Row 1: CITRIC ACID, 77-92-9, 100, NIF, NIF.

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NA = Not Applicable NE = Not Established
NL = Not Listed NIF = No Information Found

3. HAZARD IDENTIFICATION:

EMERGENCY OVERVIEW

PRIMARY ROUTE(S) OF ENTRY:

INHALATION? X SKIN? X INGESTION? X

ACUTE EFFECT OF OVEREXPOSURE:

EYES: CAN CAUSE SEVERE EYE IRRITATION. SYMPTOMS INCLUDE STINGING, TEARING, REDNESS, AND SWELLING OF EYES. CAN INJURE EYE TISSUE.

SKIN: CAN CAUSE SKIN IRRITATION. SYMPTOMS MAY INCLUDE REDNESS AND BURNING OF SKIN AND OTHER SKIN DAMAGE.

INHALATION: BREATHING SMALL AMOUNTS OF THIS MATERIA DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS. BREATHING LARGE AMOUNTS MAY BE HARMFUL.

INGESTION: SWALLOWING SMALL AMOUNTS OF THIS MATERIAL DURING NORMAL HANDLING IS NOT LIKELY TO CAUSE HARMFUL EFFECTS. SWALLOWING LARGE AMOUNTS MAY BE HARMFUL.

CHRONIC EFFECTS OF EXPOSURE: PROLONGED EXPOSURE MAY DAMAGE TOOTH ENAMEL.

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4. FIRST AID MEASURES:

EYE CONTACT: FLUSH EYES GENTLY WITH WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS APART; SEEK IMMEDIATE MEDICAL ATTENTION.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING. WASH EXPOSED AREA WITH SOAP AND WATER. IF SYMPTOMS PERSISTS, SEEK MEDICAL ATTENTION. LAUNDRER CLOTHING BEFORE REUSE.

INHALATION: IF SYMPTOMS DEVELOP, MOVE INDIVIDUAL AWAY FROM EXPOSURE AND INTO FRESH AIR. IF SYMPTOMS PERSISTS, SEEK MEDICAL ATTENTION. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. KEEP PERSON WARM AND QUIET; SEEK IMMEDIATE MEDICAL ATTENTION.

INGESTION: SEEK MEDICAL ATTENTION. IF INDIVIDUAL IS DROWSY OR UNCONSCIOUS, DO NOT GIVE ANYTHING BY MOUTH; PLACE INDIVIDUAL ON THE LEFT SIDE WITH THE HEAD DOWN. CONTACT A PHYSICIAN, MEDICAL FACILITY, OR POISON CONTROL CENTER FOR ADVICE ABOUT WHETHER TO INDUCE VOMITING. IF POSSIBLE, DO NOT LEAVE INDIVIDUAL UNATTENDED.

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5. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT (METHOD USED): >100°C

FLAMMABLE LIMITS: NIF LEL UEL

5. FIRE AND EXPLOSION HAZARD DATA (cont):

EXTINGUISHING MEDIA: WATER SPRAY, CARBON DIOXIDE (CO2), DRY CHEMICAL.

SPECIAL FIRE FIGHTING PROCEDURES: NO SPECIAL FIRE HAZARDS ARE KNOWN TO BE ASSOCIATED WITH THIS PRODUCT. WEAR FULL FIREFIGHTING TURN-OUT GEAR (FULL BUNKER GEAR), AND RESPIRATORY PROTECTION (SCBA).

UNUSUAL FIRE AND EXPLOSION HAZARDS: NIF

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6. SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: SHOVEL MATERIALS INTO CONTAINERS. THOROUGHLY SWEEP AREA OF SPILL TO CLEAN UP ANY RESIDUAL MATERIAL. SWEEP UP MATERIAL FOR DISPOSAL OR RECOVERY.

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7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPITED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED. STORE IN A COOL, DRY, VENTILATED AREA, AWAY FROM INCOMPATIBLE SUBSTANCE.

OTHER PRECAUTIONS: NIF

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8. EXPOSURE CONTROL/PERSONAL PROTECTION:

RESPIRATORY PROTECTION (SPECIFY TYPE): IF NEEDED, USE A NIOSH-APPROVED DUST RESPIRATOR. (ASK YOUR SAFETY REPRESENTATIVE.)

VENTILATION: LOCAL EXHAUST: X MECHANICAL: OTHER:

PROTECTIVE GLOVES: CHEMICAL RESISTANT GLOVES.

EYE PROTECTION: GOGGLES OR SAFETY GLASSES.

OTHER PROTECTIVE EQUIPMENT: WEAR NORMAL WORK CLOTHING COVERING ARMS AND LEGS.

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9. PHYSICAL DATA:

BOILING POINT: NA SPECIFIC GRAVITY (H2O = 1): pH .2.2@10 g/L

VAPOR PRESSURE (MM HG.): 0 MELTING POINT: 153°C AUTOIGNITION TEMP: 1010°C

9. PHYSICAL DATA (cont):

VAPOR DENSITY (AIR = 1): NO DATA

SOLUBILITY IN WATER: SOLUBLE

APPEARANCE AND ODOR: ODORLESS
WHITE CRYSTALLINE

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10. STABILITY AND REACTIVITY:

STABILITY: UNSTABLE: STABLE: X

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG ALKALIS

HAZARDOUS DECOMPOSITION OF BY-PRODUCTS: CARBON DIOXIDE AND CARBON
MONOXIDE, HYDROCARBONS

HAZARDOUS POLYMERIZATION:
MAY OCCUR: WILL NOT OCCUR: X

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11. TOXICOLOGICAL INFORMATION:

LD50/LC50: LD50 MOUSE: 5040 MG/KG

REPRODUCTIVE TOXICITY: CITRIC ACID DID NOT CAUSE HARMFUL EFFECTS ON
DEVELOPING FETUS WHEN GIVEN IN THE DIET OF LABORATORY ANIMALS, EVEN AT
CONCENTRATIONS WHICH WERE HARMFUL TO THE PREGNANT ANIMALS.

IRRITANCY, SENSITIVITY: NIF

CARCINOGENICITY: NL NTP? IARC? OSHA?

POTENTIAL HEALTH EFFECTS:

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12. ECOLOGICAL INFORMATION: NIF

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13. DISPOSAL CONSIDERATIONS: DISPOSE OF IN ACCORDANCE WITH ALL
APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

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14. TRANSPORTATION INFORMATION: NOT DANGEROUS GOODS

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15. REGULATORY INFORMATION:

CALIFORNIA PROPOSITION 65: THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS
KNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH, OR ANY OTHER
REPRODUCTIVE DEFECTS.

	HEALTH	FLAMMABILITY	REACTIVITY	OTHER
HMIS	1	1	0	
NFPA	1	1	0	

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16. OTHER INFORMATION: NONE

The information herein is given in good faith but no warranty,
expressed or implied, is made.