

## Safety Data Sheet

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

SECTI	ON 1: Identification		
1.1.	Identification		
Product form		: Mixture	
Product name		: Aerospray TB Reagent A: Carbol Fuchsin Decolorizer Concentrate	
Product code		: SS-161A	
1.2.	Relevant identified uses of the substance or mixture and uses advised against		
Use of the substance/mixture		: Laboratory chemical	
1.3.	Details of the supplier of the safety data sheet		
370 We Logan, T +1 (43	Group Inc. st 1700 South UT 84321 - USA 35) 752-6011 - F +1 (435) 752-4127 ps@elitechgroup.com - www.elitechgroup.con		
1.4.	Emergency telephone number		
Emer	gency number	<ul> <li>Contact your distributor or poison control center in your country. InfoTrac Emergency Response: Calls within the USA, phone: 1-800-535-5053. Calls outside the USA, phone: +1 352-323-3500 (call collect) Customer ID: #90104 (NOTE: this number is required when a customer calls into either phone number above).</li> </ul>	

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

### **GHS US classification**

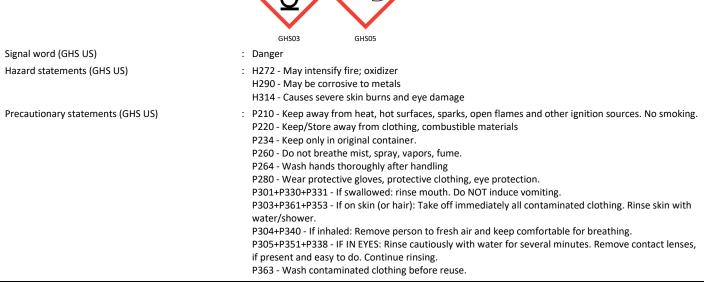
Ox. Liq. 2	H272 -	May intensify fire; oxidizer
Met. Corr. 1	H290 -	May be corrosive to metals
Skin Corr. 1	H314 -	Causes severe skin burns and eye damage

Full text of H statements : see section 16

#### 2.2. Label elements

#### **GHS US labeling**

Hazard pictograms (GHS US)



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P370+P378 - In case of fire: Use carbon dioxide (CO2), D-powder, dry extinguishing powder, foam to

extinguish.

P390 - Absorb spillage to prevent material-damage.

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards

No additional information available

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
nitric acid	(CAS-No.) 7697-37-2	20 – 35	Ox. Liq. 2, H272 Met. Corr. 1, H290 Skin Corr. 1A, H314

## Full text of H- and EUH-statements: see section 16

SECTION A: Eirst aid measures

SECTION 4: First ald measures	
4.1. Description of first aid measures	
First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.
4.2. Most important symptoms and effects, b	oth acute and delayed
Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

## 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTIO	ON 5: Firefighting measures	
5.1.	Extinguishing media	
Suitable extinguishing media		: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media		: Do not use a heavy water stream.
5.2.	Special hazards arising from the substance or mixture	
Fire ha	zard	: May intensify fire; oxidizer.
Explosion hazard		: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
Reactiv	vity	: The product is non-reactive under normal conditions of use, storage and transport. May intensify fire; oxidizer.
5.3.	Advice for firefighters	
Firefig	hting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Fight fire remotely due to the risk of explosion.

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Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release meas	ures
6.1. Personal precautions, protective e	equipment and emergency procedures
General measures	: No open flames. No smoking.
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe vapors. Do not get in eyes, or skin, or on clothing. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate area.
<b>6.2. Environmental precautions</b> Avoid release to the environment.	
6.3. Methods and material for contain	ment and cleaning up
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public water
Other information	: Dispose of materials or solid residues at an authorized site.
<b>6.4. Reference to other sections</b> For further information refer to section 13.	
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Additional hazards when processed	: Hazardous waste due to potential risk of explosion. May be corrosive to metals.
Precautions for safe handling	: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe vapors. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe dust/fume/gas/mist/vapors/spray.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Alway wash hands after handling the product.
7.2. Conditions for safe storage, includ	ling any incompatibilities
Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations.
Storage conditions	: Store locked up. Store in a well-ventilated place. Keep cool. Store in corrosive resistant container with resistant inner liner. Keep only in original container.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight. Heat sources. Combustible materials. Metals.
Packaging materials	: Store in corrosive resistant container with a resistant inner liner.

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

## 8.1. Control parameters

nitric acid (7697-37-2)		
ACGIH	ACGIH TWA (ppm)	2 ppm
ACGIH	ACGIH STEL (ppm)	4 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: URT & eye irr; dental erosion
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	2 ppm

## 8.2. Exposure controls

Appropriate engineering controls

: Ensure good ventilation of the work station.

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Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves. Suitable gloves should be tested to EN 374. The glove material has to be impermeable and resistant to the product/the substance/the preparation. As the product is a preparation of several substances, the resistance and penetration time/breakthrough time of the glove material cannot be calculated/observed in advance and, therefore, has to be checked prior to the application. The following are recommended: materials - natural latex or nitrile; thickness - 4 to 6 mils (0.1 mm - 0.15 mm); minimum breakthrough time - 60 minutes.
Eye protection	: Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls	: Avoid release to the environment.
Other information	: Do not eat, drink or smoke during use.

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

Physical state	: Liquid
Color	: Colourless to yellow; On exposure to light: yellow to red-brown
Odor	: Odorless to irritating/pungent odour
Odor threshold	: No data available
РH	: <1
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
-lash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
xplosive properties	: No data available
Dxidizing properties	: May intensify fire; oxidizer.
/apor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	: Water: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

## 9.2. Other information

No additional information available

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

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. May intensify fire; oxidizer.

## 10.2. Chemical stability

Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Strong acids. Strong bases. metals. May be corrosive to metals. Combustible materials.

## 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Causes severe skin burns.
	pH: < 1
Serious eye damage/irritation	: Assumed to cause serious eye damage
	pH: < 1
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
	Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
	Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

## nitric acid (7697-37-2)

NOAEL (oral,rat,90 days)	1500 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, gas, 90 days)	2.15 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

## **SECTION 12: Ecological information**

12.1.	Toxicity
Ecology	- general

: Before neutralisation, the product may represent a danger to aquatic organisms.

nitric acid (7697-37-2)		
NOEC chronic fish	97.8 mg/l Test organisms (species): other: Amphiprion ocellaris (anemone fish) Duration: '3 mo'	

## 12.2. Persistence and degradability

Aerospray TB Reagent A: Carbol Fuchsin Decolorizer	spray TB Reagent A: Carbol Fuchsin Decolorizer Concentrate	
Persistence and degradability	Not established.	
nitric acid (7697-37-2)		
nitric acid (7697-37-2)		

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Bioaccumulative potential	Not established.	
nitric acid (7697-37-2)		
Bioaccumulative potential	Not established.	
2.4. Mobility in soil		
lo additional information available		
2.5. Other adverse effects		
Other information	: Avoid release to the environment.	
ECTION 13: Disposal considerations		
3.1. Waste treatment methods		
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.	
Product/Packaging disposal recommendations	<ul> <li>Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.</li> </ul>	
Additional information	: Hazardous waste due to potential risk of explosion.	
Ecology - waste materials	: Avoid release to the environment.	
ECTION 14: Transport information		
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ECTION 14: Transport information	: UN2031 Nitric acid, 8, II	
ECTION 14: Transport information Department of Transportation (DOT) n accordance with DOT	: UN2031 Nitric acid, 8, II : UN2031	
ECTION 14: Transport information Department of Transportation (DOT) accordance with DOT Transport document description		
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ECTION 14: Transport information Department of Transportation (DOT) In accordance with DOT Transport document description UN-No.(DOT) Proper Shipping Name (DOT)	: UN2031 : Nitric acid	
ECTION 14: Transport information Pepartment of Transportation (DOT) a accordance with DOT Transport document description UN-No.(DOT) Proper Shipping Name (DOT) Class (DOT)	: UN2031 : Nitric acid : 8 - Class 8 - Corrosive material 49 CFR 173.136	
ECTION 14: Transport information Pepartment of Transportation (DOT) a accordance with DOT Transport document description UN-No.(DOT) Proper Shipping Name (DOT) Class (DOT)	<ul> <li>: UN2031</li> <li>: Nitric acid</li> <li>: 8 - Class 8 - Corrosive material 49 CFR 173.136</li> <li>: 8 - Corrosive</li> </ul>	
ECTION 14: Transport information Department of Transportation (DOT) In accordance with DOT Transport document description UN-No.(DOT) Proper Shipping Name (DOT) Class (DOT) Hazard labels (DOT)	<ul> <li>: UN2031</li> <li>: Nitric acid</li> <li>: 8 - Class 8 - Corrosive material 49 CFR 173.136</li> <li>: 8 - Corrosive</li> </ul>	

#### Safety Data Sheet 77 N.a

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DOT Special Provisions (49 CFR 172.102)	: A6 - For combination packaging, if plastic inner packaging are used, they must be packed in tightly closed metal receptacles before packing in outer packaging.	
	A212 - UN 2031, Nitric acid, other than red fuming, with more than 20% and less than 65% nitric acid" intended for use in sterilization devices only, may be transported on passenger aircraft irrespective of the indication of "forbidden" in columns (9A) of the §172.101 table provided that:	
	a. Each inner packaging contains not more than 30 mL;	
	b. Each inner packaging is contained in a sealed leak-proof intermediate packaging with sufficient absorbent material capable of containing the contents of the inner packaging;	
	c. Intermediate packagings are securely packed in an outer packaging of a type permitted by §173.158(g) of this subchapter which meet the requirements of part 178 of this subchapter at the Packing Group I performance level;	
	d. The maximum quantity of nitric acid in the package does not exceed 300 mL; and	
	e. Transport in accordance with this special provision must be noted on the shipping paper. B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized.	
	B47 - Each tank may have a reclosing pressure relief device having a start-to-discharge pressure setting of 310 kPa (45 psig). B53 - Packaging must be made of either aluminum or steel.	
	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.	
	IP15 - For UN2031 with more than 55% nitric acid, rigid plastic IBCs and composite IBCs with a rigid plastic inner receptacle are authorized for two years from the date of IBC manufacture. T8 - 4 178.274(d)(2) Normal	
	TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the	
DOT Dackaging Exceptions (40 CEP 172 yers)	densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.	
DOT Packaging Exceptions (49 CFR 173.xxx) DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: None : Forbidden	
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 30 L	
DOT Vessel Stowage Location	: D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.	
DOT Vessel Stowage Other	: 44 - Stow "away from" oxidizers,66 - Stow "separated from" flammable solids,74 - Stow "separated from" oxidizers,89 - Segregation same as for oxidizers,90 - Stow "separated from" radioactive materials	
Emergency Response Guide (ERG) Number	: 157	
Other information	: No supplementary information available.	
Transportation of Dangerous Goods No additional information available		
Transport by sea		
UN-No. (IMDG)	: 2031	
Proper Shipping Name (IMDG)	: NITRIC ACID	
Class (IMDG)	: 8 - Corrosive substances	
Packing group (IMDG)	: II - substances presenting medium danger	

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## Air transport

2031
Nitric acid
8 - Corrosives
II - Medium Danger

## **SECTION 15: Regulatory information**

## 15.1. US Federal regulations

nitric acid (7697-37-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb
SARA Section 313 - Emission Reporting	1%

### 15.2. International regulations

### CANADA

nitric acid (	7697-37-2)
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Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

No additional information available

#### National regulations

No additional information available

## 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

nitric acid (7697-37-2)
U.S Massachusetts - Right To Know List
U.S New Jersey - Right to Know Hazardous Substance List
U.S Pennsylvania - RTK (Right to Know) List

## **SECTION 16: Other information**

## Other information

: None.

Full text of H-phrases:

ſ	H272	May intensify fire; oxidizer
	H290	May be corrosive to metals
Ī	H314	Causes severe skin burns and eye damage

#### SDS US Custom - EBS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Reason For Change: updated to latest GHS format and classifications to meet compliance. Added Prop 65 information to Section 15.