



# SAFETY DATA SHEET

## 1. PRODUCT AND MANUFACTURER IDENTIFICATION

Product Name: **Passivator 666 & 666 TK**

**Manufacturer Name & Address:**

Arcal Chemicals, Inc.  
223 West Hampton Avenue  
Capitol Heights, MD 20743

**General Information:**

(Tel) 301-336-9300  
(Fax) 301-336-6597

**Emergency CHEMTREC:**

In case of chemical emergencies  
800-424-9300 (within USA)  
703-527-3887 (outside of USA)

## 2. HAZARDS IDENTIFICATION



**Emergency Overview:**

**WARNING:** Corrosive! May be fatal if inhaled or swallowed. Causes severe skin and eye burns. Vapors are extremely irritating to eyes and respiratory tract. Strong, offensive odor. Prompt removal of the material and obtaining medical attention are essential for all contact. Remove all contaminated clothing and immediately wash the exposed areas with copious amounts of water. Continue the flushing during transportation to the emergency department. Corrosive effects may be delayed (up to 72 hours), and damage may occur without the sensation or onset of pain. Contact local poison control center for further guidance.

**Exposure Routes:**

Eyes, skin, ingestion, inhalation.

**Eye contact:**

**H318:** Causes serious eye damage. If product comes into contact with the eyes, burns may occur.

**Skin Contact:**

**H314:** Causes severe skin burns and eye damage. Contact with skin will cause burns and irritation with prolonged contact.

**Ingestion:**

**H300:** Fatal if swallowed. Large amounts ingested can damage oral and gastric membranes.

**Inhalation:**

**H330:** Fatal if inhaled. Hydrogen chloride vapors may occur as product dries.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components	CAS Number	Concentration	ACGIH TWA	OSHA TWA
Nitric Acid	7697-37-2	<40%	2 ppm	2 ppm

## 4. FIRST AID MEASURES

**Eye Contact:**

Immediately flush eyes with running water for a minimum of 30 minutes, preferably up to 60 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Do not transport victim until the recommended flushing period is completed unless flushing can be continued during transport.

**Skin Contact:**

Prompt removal of the material from the skin is essential. Remove all contaminated clothing and immediately wash the exposed areas with copious amounts of water for a minimum of 30 minutes or up to 60 minutes for

- critical body areas. Obtain medical attention immediately.
- Ingestion:** Do not attempt to give anything by mouth to an unconscious person. **IMMEDIATELY** contact local Poison Control Center. If victim is alert and not convulsing, rinse mouth out and give 1 to 2 glasses of milk. Water may be used if milk is not available but it is not as effective. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more milk or water. **IMMEDIATELY** transport victim to an emergency facility.
- Inhalation:** Move victim to fresh air. Give artificial respiration **ONLY** if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing **AND** no pulse. Oxygen administration may be beneficial in this situation but should only be administered by personnel trained in its use. Obtain medical attention **IMMEDIATELY**.

## 5. FIRE-FIGHTING MEASURES

- Flash point:** None
- Special firefighting procedures:** Not normally a fire hazard. Water content of product prevents ignition. The product can support combustion if water evaporates. Use media appropriate for surrounding fire and/or materials. Use water to dilute and absorb the liberated oxides of nitrogen.
- Unusual fire or explosion hazards:** Acid vapor is highly toxic.
- Decomposition products under fire conditions:** Hydrogen fluoride & oxides of nitrogen. Empty container may contain residue that is harmful, rinse completely with alkaline detergent and water before disposal.

### NFPA Flammable Liquids Classification

Health	Flammability	Reactivity
4	0	3

## 6. ACCIDENTAL RELEASE MEASURES

USE PERSONAL PROTECTION RECOMMENDED IN SECTION 8

- Environmental precautions:** For release to land, or storm water runoff, contain discharge by constructing dykes or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. Ventilate enclosed spaces. Notify applicable government authority if release is reportable or could adversely affect the environment. Replace damaged containers immediately to avoid loss of material and contamination of surrounding atmosphere.
- Clean-up methods:** Protective clothing for skin and eye protection should be worn to protect against corrosive materials. Do not use combustible materials such as sawdust as an absorbent. Spilled acid may cause floors and contact surfaces to become slippery. Collect product for recovery or disposal.

## 7. HANDLING AND STORAGE

- Handling:** Use normal industrial hygiene and "good" housekeeping practices. Containers exposed to heat may be under internal pressure. These should be cooled and carefully vented before opening. A face shield and apron should be worn. Vent container frequently, and more often in warm weather, to relieve pressure. Ventilation Requirements: Use with proper ventilation: exhaust hoods should maintain a minimum face velocity of 100 CFM. Gaseous oxides are heavier than air; and downdraught exhaust systems should be used where general ventilation is inadequate. Exhaust ducts should be fiberglass or other resistant materials.
- Storage:** Store below 29° C. Do not freeze. Storage tanks should be in a contained area to control any spills or leaks. Storage

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area should be equipped with corrosion-resistant floors, sumps and should have controlled drainage to a recovery tank. Protect from direct sunlight. Protect against physical damage. Do not store or transport with food or feed.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

SEE SECTION 3 FOR EXPOSURE LIMITS.

<b>Exposure controls:</b>	Contact with skin, eyes and mucous membranes can contribute to the overall exposure and may invalidate the TLV. Consider measures to prevent absorption by these routes.
<b>Respiratory protection:</b>	Local exhaust ventilation required. Ventilation should be corrosion proof. Vapors should be collected and neutralized in a suitable scrubbing system. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilate low lying areas such as sumps or pits where dense vapors may collect.
<b>Eye protection:</b>	Use full face-shield and chemical safety goggles when there is potential for contact. Approved acid-resistant monogoggles are required. Contact lenses should not be worn when working with this material.
<b>Skin protection:</b>	Gloves and protective clothing made from viton, butyl rubber, neoprene or polyethylene should be impervious under conditions of use. Do not use gloves or protective clothing made from polyvinyl alcohol (PVA), nitrile rubber or natural rubber. Discard contaminated gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Clear
<b>Odor:</b>	Acidic
<b>Boiling point/range:</b>	110° C / 230° F
<b>Flash point:</b>	None
<b>Solubility in water:</b>	Complete
<b>Volatile Organic Content (VOC):</b>	None
<b>Density:</b>	11.3 lbs. / gal

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable.
<b>Hazardous reactions:</b>	The product can support combustion if water contained in product evaporates.
<b>Hazardous decomposition products:</b>	Hydrogen fluoride & oxides of nitrogen.
<b>Incompatible materials:</b>	Avoid contact with easily oxidizable materials like alcohols & alkaline material.
<b>Conditions to avoid:</b>	Extreme heat and cold. Environments which are not well ventilated.

## 11. TOXICOLOGICAL INFORMATION

Nitric Acid LC50 (Inhal'n, Rat, 4h) = 130 mg/M3 (1)

LC50 (Inhal'n, Rat, 4h) = 65 - 67 ppm (NO2) (3)

Carcinogenicity Data: The ingredient(s) of this product is (are) not classed as carcinogenic by ACGIH, IARC, OSHA or NTP.

## 12. ECOLOGICAL

Harmful to aquatic life at low concentrations. Toxicity is primarily associated with pH. Acidic soil conditions can develop with product

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present. Higher than normal toxic heavy metal concentrations can then occur in ground and surface waters.

### 13. DISPOSAL CONSIDERATIONS

**Recommended method of disposal:** Neutralize carefully with soda ash or sodium bicarbonate to a pH of 6 to 9. Check for a neutral pH using pH paper. Legal disposition of the waste is the responsibility of the owner/generator of the waste. Applicable federal, state and/or local regulations must be followed during treatment, storage, or disposal of waste concerning this product.

### 14. TRANSPORT INFORMATION

#### *APPLIES TO ALL MODES OF TRANSPORT*

**Proper shipping name:** NITRIC ACID SOLUTION  
**Hazard class or division:** 8  
**Identification number:** UN2031  
**Packing group:** II

### 15. REGULATORY INFORMATION

**TSCA** All constituents of this product are included on the TSCA inventory.

### 16. OTHER INFORMATION

The information accumulated herein is believed to be accurate and are not a product specification. No warranty, either expressed or implied is made. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.