



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TITRANT A1
PRODUCT NUMBER: A1
PRODUCT FAMILY: MILD ACID
MANUFACTURER: KO MANUFACTURING, INC
 2720 E. DIVISION STREET
 SPRINGFIELD, MO 65803
 417-866-8000

DATE PREPARED: 1/2/2020
SUPERCEDED DATE: 8/28/2018

EMERGENCY CONTACT:
 CHEMTREC 800-424-9300

INFORMATION USE: ACIDIC TITRANT

2. HAZARD IDENTIFICATION

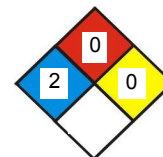
DOT HAZARD CLASSIFICATION: NOT REGULATED BY D.O.T.

SIGNAL WORD: DANGER!

ROUTE OF EXPOSURE: EYE CONTACT, SKIN CONTACT, INHALATION, INGESTION

GHS HAZARD CLASSIFICATION: SERIOUS EYE DAMAGE/ EYE IRRITATION 1
 SKIN IRRITANT 2

NFPA



GHS LABEL ELEMENTS: H315 - Causes skin irritation.

H318 - Causes serious eye damage.

P264 - Wash exposed skin thoroughly after handling.

P280 - Wear protective gloves/eye protection/face protection.

P313 - Get medical advice/attention.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call POISON CENTER or doctor/physician.

P332+ P313 - If skin irritation occurs: Get medical advice/attention.

P362 - Take off contaminated clothing and wash before reuse.

PICTOGRAMS



3. COMPOSITION IDENTIFICATION

INGREDIENTS:

HYDROCHLORIC ACID
 WATER

C.A.S. NUMBER:

7647-01-0
 7732-18-5

PERCENT:

<1.0%
 Balance

4. FIRST AID MEASURES

EYE CONTACT: RINSE WITH FRESH WATER FOR 15 MINUTES, LIFTING EYELIDS OCCASIONALLY. CALL A PHYSICIAN IF IRRITATION PERSISTS.

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4. FIRST AID MEASURES - CONTINUED

SKIN CONTACT: RINSE WITH PLENTY OF FRESH WATER AND REMOVE CONTAMINATED CLOTHING IMMEDIATELY. CALL A PHYSICIAN IF IRRITATION PERSISTS.

INGESTION: RINSE MOUTH WITH FRESH WATER. DO NOT INDUCE VOMITING. CALL A PHYSICIAN IMMEDIATELY. IF CONSCIOUS, GIVE LARGE QUANTITIES OF WATER. DO NOT GIVE ANYTHING BY MOUTH IF UNCONSCIOUS.

INHALATION: IF OVERCOME BY EXPOSURE, REMOVE VICTIM TO FRESH AIR IMMEDIATELY. GIVE OXYGEN OR ARTIFICIAL RESPIRATION AS NEEDED. CALL A PHYSICIAN IMMEDIATELY.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: NON FLAMMABLE.

FLASH POINT: DOES NOT FLASH.

SUITABLE EXTINGUISHING MEDIA: DRY CHEMICAL, FOAM OR CARBON DIOXIDE, WATER SPRAY.

UNSUITABLE EXTINGUISHING MEDIA: NOT ESTABLISHED.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: NONE KNOWN.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS: WEAR SELF-CONTAINED BREATHING APPARATUS (PRESSURE DEMAND MSHA/NIOSH APPROVED) AND FULL PROTECTIVE GEAR.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: AVOID CONTACT WITH EYES AND SKIN. SPILL AREA MAY BE SLIPPERY. WEAR PROPER PROTECTIVE EQUIPMENT WHEN DEALING WITH RELEASE.

ENVIRONMENTAL PRECAUTIONS: CONTAIN SPILL TO AVOID RELEASE TO THE ENVIRONMENT. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE.

METHODS FOR CONTAINMENT AND CLEAN-UP: COLLECT FOR DISPOSAL USING AN INERT ABSORBENT MATERIAL AND TRANSFER TO A CONTAINER FOR REUSE OR DISPOSAL.

7. HANDLING AND STORAGE

HANDLING: SPILLED MATERIAL MAY BE SLIPPERY. ALWAYS WEAR PROPER PROTECTIVE EQUIPMENT WHEN HANDLING. WASH THOROUGHLY AFTER HANDLING.

STORAGE: STORE IN A COOL, DRY PLACE. KEEP OUT OF REACH OF CHILDREN. KEEP LID TIGHTLY CLOSED WHEN NOT IN USE.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: NONE REQUIRED UNDER NORMAL USE.

EYE / FACE PROTECTION: CHEMICAL SAFETY GLASSES.

SKIN PROTECTION: CHEMICAL RESISTANT GLOVES AND APRON

THRESHOLD LIMIT VALUE (TLV): NOT ESTABLISHED.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: LIQUID.

APPEARANCE: CLEAR LIQUID.

ODOR: ACID SCENT.

BOILING POINT: NOT ESTABLISHED.

FREEZING POINT: NOT ESTABLISHED.

SPECIFIC GRAVITY: 1.01

pH (1%): 3.0-3.5

EVAPORATION RATE: LESS THAN 1.

FLASH POINT: DOES NOT FLASH.

LOWER FLAMMABILITY/EXPLOSIVE LIMIT: NOT ESTABLISHED.

UPPER FLAMMABLE/EXPLOSIVE LIMIT: NOT ESTABLISHED.

AUTO-IGNITION TEMPERATURE: NOT ESTABLISHED.

VISCOSITY: NOT ESTABLISHED.

REALITIVE DENSITY: 8.34 LBS./GL.

SOLUBILITY: SOLUBLE.

VAPOR PRESSURE: NOT ESTABLISHED.

VAPOR DENSITY: NOT ESTABLISHED.

DECOMPOSITION TEMPERATURE: NOT ESTABLISHED.

PARTICAL COEFFICIENT: NOT ESTABLISHED.
N-OCTANOL/WATER

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10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: STABLE.

CONDITIONS TO AVOID: NONE KNOWN.

INCOMPATIBLE MATERIALS: DO NOT MIX WITH OTHER CHEMICALS.

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE AND DIOXIDE FROM THERMAL DECOMPOSITION.

11. TOXICOLOGICAL INFORMATION

EYE IRRITATION/CORROSION: SERIOUS EYE DAMAGE/ EYE IRRITATION

EFFECTS OF SHORT-TERM EXPOSURE: DIRECT EYE CONTACT MAY CAUSE SEVERE IRRITATION OR BURNS.

INGESTION: SEVERE IRRITATION OR BURNS TO MOUTH, THROAT, STOMACH.

LD-50: NOT ESTABLISHED.

CARCINOGENICITY: NOT CONSIDERED A CARCINOGEN BY IARC, ACGIH, NTP, OR OSHA

12. ECOLOGICAL IDENTIFICATION

ECOTOXICITY: NOT ESTABLISHED.

PERSISTENCE AND DEGRADABILITY: BIODEGRADABLE.

BIOACCUMULATION/ACCUMULATION: NOT ESTABLISHED.

13. DISPOSAL CONDITIONS

MATERIALS ARE TO BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

14. TRANSPORTATION INFORMATION

GROUND SHIPPING INFORMATION:

CLEANING, SCOURING, OR WASHING COMPOUNDS, N.O.S., LIQUID.

WATER SHIPPING INFORMATION:

CLEANING, SCOURING, OR WASHING COMPOUNDS, N.O.S., LIQUID.

AIR SHIPPING INFORMATION:

CLEANING, SCOURING, OR WASHING COMPOUNDS, N.O.S., LIQUID.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS:

TSCA (TOXIC SUBSTANCE CONTROL ACT) ALL COMPONENTS LISTED ON TSCA INVENTORY.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

313 REPORTABLE INGREDIENTS

CAS NUMBER:

PERCENT:

NONE.

STATE REGULATIONS:

INTERNATIONAL REGULATIONS: CLASS E CORROSIVE UNDER CANADIAN WHMIS

SECTION 15 NOTES: NONE.

16. OTHER INFORMATION

PHONE NUMBER: 417-866-8000

DATE OF PREPARATION: 1/2/2020

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