# Chem-Impex International Inc.

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## SAFETY DATA SHEET

#### SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 46196

NAME: 3-Fluoronitrobenzene

SYNONYMS:

24 HOUR EMERGENCY

TELEPHONE:

(800) 535-5053(USA)

352-323-3500 (INTERNATIONAL)

TO REQUEST AN MSDS: (800) 869-9290

CUSTOMER SERVICE:

(630) 766-2112

### SECTION 2. HAZARDS IDENTIFICATION

### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

#### GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)

FLAMMABLE LIQUIDS (CATEGORY 4), H227
ACUTE TOXICITY, ORAL (CATEGORY 3), H301
ACUTE TOXICITY, INHALATION (CATEGORY 3), H331
ACUTE TOXICITY, DERMAL (CATEGORY 3), H311
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (CATEGORY 2), H373

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

## GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

PICTOGRAM

SIGNAL WORD DANGER

#### HAZARD STATEMENT(S)

H227 COMBUSTIBLE LIQUID.

H301 + H311 + H331 TOXIC IF SWALLOWED, IN CONTACT WITH SKIN OR IF

INHALED.

H373 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED

OR REPEATED EXPOSURE.

#### PRECAUTIONARY STATEMENT(S)

P210 KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT

SURFACES. NO SMOKING.

P260 DO NOT BREATHE DUST/ FUME/ GAS/ MIST/ VAPORS/ SPRAY.

P264 WASH SKIN THOROUGHLY AFTER HANDLING.
P270 DO NOT EAT, DRINK OR SMOKE WHEN USING THIS

PRODUCT.

P271 USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA.
P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE

PROTECTION/ FACE PROTECTION.

P301 + P310 + P330 IF SWALLOWED: IMMEDIATELY CALL A POISON

CENTER/DOCTOR. RINSE MOUTH.

P302 + P352 + P312 IF ON SKIN: WASH WITH PLENTY OF WATER. CALL A POISON

CENTER/DOCTOR IF YOU FEEL UNWELL.

P304 + P340 + P311 IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP

COMFORTABLE FOR BREATHING. CALL A POISON

CENTER/DOCTOR.

P314 GET MEDICAL ADVICE/ ATTENTION IF YOU FEEL UNWELL.
P361 REMOVE/ TAKE OFF IMMEDIATELY ALL CONTAMINATED

CLOTHING.

P363 WASH CONTAMINATED CLOTHING BEFORE REUSE. P370 + P378 IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR

ALCOHOL-RESISTANT FOAM TO EXTINGUISH.

P403 + P233 STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER

TIGHTLY CLOSED.

P403 + P235 STORE IN A WELL-VENTILATED PLACE. KEEP COOL.

P405 STORE LOCKED UP.

P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED

WASTE DISPOSAL PLANT.

HAZARDS NOT NONE

**OTHERWISE** 

CLASSIFIED (HNOC) OR NOT COVERED BY GHS

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: C<sub>6</sub>H<sub>4</sub>FNO<sub>2</sub>

MW: 141.10

CAS-NO. 402-67-5

PURITY:  $\geq$  97% (GC)

#### HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
3-Fluoronitrobenzene		
	FLAM. LIQ. 4; H227	<= 100 %

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

#### SECTION 4. FIRST-AID MEASURES

#### **DESCRIPTION OF FIRST AID MEASURES**

**GENERAL ADVICE** CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA

SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT

OF DANGEROUS AREA.

IF INHALED IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF

NOT BREATHING, GIVE ARTIFICIAL RESPIRATION.

CONSULT A PHYSICIAN.

IN CASE OF SKIN

**CONTACT** 

WASH OFF WITH SOAP AND PLENTY OF WATER. TAKE

VICTIM IMMEDIATELY TO HOSPITAL. CONSULT A

PHYSICIAN.

IN CASE OF EYE

**CONTACT** 

FLUSH EYES WITH WATER AS A PRECAUTION.

IF SWALLOWED DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING

BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE

MOUTH WITH WATER. CONSULT A PHYSICIAN.

MOST IMPORTANT

SYMPTOMS AND **EFFECTS, BOTH ACUTE** 

AND DELAYED

THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE

SECTION 2.2) AND/OR IN SECTION 11

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED NO DATA AVAILABLE

## **SECTION 5. FIRE AND EXPLOSION DATA**

**EXTINGUISHING MEDIA** 

SUITABLE USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY

**EXTINGUISHING MEDIA** CHEMICAL OR CARBON DIOXIDE.

**SPECIAL HAZARDS** CARBON OXIDES, NITROGEN OXIDES (NOX),

ARISING FROM THE HYDROGEN FLUORIDE

SUBSTANCE OR MIXTURE

ADVICE FOR WEAR SELF-CONTAINED BREATHING APPARATUS FOR

**FIREFIGHTERS** FIREFIGHTING IF NECESSARY.

**FURTHER INFORMATION** USE WATER SPRAY TO COOL UNOPENED CONTAINERS.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL** WEAR RESPIRATORY PROTECTION. AVOID BREATHING **PRECAUTIONS,** VAPOURS, MIST OR GAS. ENSURE ADEQUATE

PRECAUTIONS, VAPOURS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION.

EQUIPMENT AND EVACUATE PERSONNEL TO SAFE AREAS. BEWARE OF WAPOURS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS. VAPOURS CAN ACCUMULATE IN

LOW AREAS.

FOR PERSONAL PROTECTION SEE SECTION 8.

ENVIRONMENTAL PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE

**PRECAUTIONS** TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

METHODS AND CONTAIN SPILLAGE, AND THEN COLLECT WITH NON-

MATERIALS FORCOMBUSTIBLE ABSORBENT MATERIAL, (E.G. SAND,CONTAINMENT ANDEARTH, DIATOMACEOUS EARTH, VERMICULITE) ANDCLEANING UPPLACE IN CONTAINER FOR DISPOSAL ACCORDING TO

PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL / NATIONAL REGULATIONS (SEE SECTION 13).

KEEP IN SUITABLE, CLOSED CONTAINERS FOR

DISPOSAL.

**REFERENCE TO OTHER** FOR DISPOSAL SEE SECTION 13.

SECTIONS

#### SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE AVOID COM

HANDLING

AVOID CONTACT WITH SKIN AND EYES. AVOID

INHALATION OF VAPOUR OR MIST.

KEEP AWAY FROM SOURCES OF IGNITION - NO

SMOKING. TAKE MEASURES TO PREVENT THE BUILD

UP OF ELECTROSTATIC CHARGE. FOR PRECAUTIONS SEE SECTION 2.2.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT

UPRIGHT TO PREVENT LEAKAGE.

Store at 2 - 8 °C

**SPECIFIC END USE(S)** APART FROM THE USES MENTIONED IN SECTION 1.2

NO OTHER SPECIFIC USES ARE STIPULATED

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## **CONTROL PARAMETERS**

## COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.

#### **EXPOSURE CONTROLS**

APPROPRIATE AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WASH

**ENGINEERING** HANDS BEFORE BREAKS AND IMMEDIATELY AFTER

**CONTROLS** HANDLING THE PRODUCT.

#### PERSONAL PROTECTIVE EQUIPMENT

**EYE/FACE** FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FOR

**PROTECTION** EYE PROTECTION TESTED AND APPROVED UNDER

APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH

(US) OR EN 166(EU).

## SKIN PROTECTION

HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE"S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES.

**FULL CONTACT** 

WASH AND DRY HANDS.

MATERIAL: FLUORINATED RUBBER
MINIMUM LAYER THICKNESS: 0.7 MM
BREAK THROUGH TIME: 480 MIN
MATERIAL TESTED: VITOLECT (V.C.) 800 SIZE N

MATERIAL TESTED: VITOJECT (KCL 890, SIZE M)

SPLASH CONTACT

MATERIAL: NITRILE RUBBER

MINIMUM LAYER THICKNESS: 0.4 MM

**BREAK THROUGH TIME: 30 MIN** 

MATERIAL TESTED: CAMATRIL (KCL 730, SIZE M)

IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE EC APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR ANY SPECIFIC USE SCENARIO.

### BODY PROTECTION

COMPLETE SUIT PROTECTING AGAINST CHEMICALS, THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

## RESPIRATORY PROTECTION

WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULLFACE RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR TYPE ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

## CONTROL OF ENVIRONMENTAL EXPOSURE

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Colorless to yellow to green clear liquid

ODOUR NO DATA AVAILABLE
ODOUR THRESHOLD NO DATA AVAILABLE
PH NO DATA AVAILABLE

MELTING 2 °C

POINT/FREEZING POINT

INITIAL BOILING POINT 198 °C

AND BOILING RANGE

FLASH POINT 87 °C

EVAPORATION RATE NO DATA AVAILABLE FLAMMABILITY (SOLID, NO DATA AVAILABLE

GAS)

UPPER/LOWER NO DATA AVAILABLE

FLAMMABILITY OR EXPLOSIVE LIMITS

VAPOUR PRESSURE NO DATA AVAILABLE VAPOUR DENSITY NO DATA AVAILABLE

RELATIVE DENSITY 1.33

WATER SOLUBILITY NO DATA AVAILABLE PARTITION COEFFICIENT: NO DATA AVAILABLE

N- OCTANOL/WATER

AUTO-IGNITION NO DATA AVAILABLE

TEMPERATURE

DECOMPOSITION NO DATA AVAILABLE

TEMPERATURE

VISCOSITY NO DATA AVAILABLE EXPLOSIVE PROPERTIES NO DATA AVAILABLE OXIDIZING PROPERTIES NO DATA AVAILABLE

### OTHER SAFETY INFORMATION

NO DATA AVAILABLE

#### SECTION 10. STABILITY AND REACTIVITY

**REACTIVITY** NO DATA AVAILABLE

CHEMICAL STABILITY STABLE UNDER RECOMMENDED STORAGE

CONDITIONS.

POSSIBILITY OF HAZARDOUS REACTIONS NO DATA AVAILABLE

**CONDITIONS TO AVOID** HEAT, FLAMES AND SPARKS.

INCOMPATIBLE MATERIALS STRONG BASES, STRONG OXIDIZING AGENTS

**HAZARDOUS DECOMPOSITION PRODUCTS** 

HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS. - CARBON OXIDES. NITROGEN OXIDES (NOX), HYDROGEN FLUORIDE OTHER DECOMPOSITION PRODUCTS - NO DATA

**AVAILABLE** 

IN THE EVENT OF FIRE: SEE SECTION 5

#### SECTION 11. TOXICOLOGICAL INFORMATION

#### INFORMATION ON TOXICOLOGICAL EFFECTS

**ACUTE TOXICITY** NO DATA AVAILABLE

INHALATION: NO DATA AVAILABLE

DERMAL: NO DATA AVAILABLE

NO DATA AVAILABLE

SKIN NO DATA AVAILABLE

**CORROSION/IRRITATION** 

**SERIOUS EYE** NO DATA AVAILABLE

**DAMAGE/EYE IRRITATION** 

**RESPIRATORY OR SKIN** NO DATA AVAILABLE **SENSITISATION** 

**GERM CELL** NO DATA AVAILABLE **MUTAGENICITY** 

**CARCINOGENICITY** 

NO INGREDIENT OF THIS PRODUCT PRESENT AT IARC:

LEVELS GREATER THAN OR EQUAL TO 0.1% IS

IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED

HUMAN CARCINOGEN BY IARC.

ACGIH: NO INGREDIENT OF THIS PRODUCT PRESENT AT

> LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL

CARCINOGEN BY ACGIH.

NTP: NO INGREDIENT OF THIS PRODUCT PRESENT AT

> LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED

CARCINOGEN BY NTP.

NO COMPONENT OF THIS PRODUCT PRESENT AT OSHA:

LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON

OSHA S LIST OF REGULATED CARCINOGENS.

REPRODUCTIVE TOXICITY NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN** 

**TOXICITY - SINGLE** 

**EXPOSURE** 

NO DATA AVAILABLE

SPECIFIC TARGET ORGAN

TOXICITY - REPEATED

**EXPOSURE** 

NO DATA AVAILABLE

ASPIRATION HAZARD

NO DATA AVAILABLE

ADDITIONAL INFORMATION

RTECS: NOT AVAILABLE

ABSORPTION INTO THE BODY LEADS TO THE FORMATION OF METHEMOGLOBIN WHICH IN SUFFICIENT CONCENTRATION CAUSES CYANOSIS. ONSET MAY BE DELAYED 2 TO 4 HOURS OR LONGER.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE

NOT BEEN THOROUGHLY INVESTIGATED.

QUANTITATIVE DATA ON THE TOXICITY OF THIS

PRODUCT ARE NOT AVAILABLE.

OTHER INFORMATION

THE FOLLOWING APPLIES TO AROMATIC NITRO COMPOUNDS IN GENERAL: SYSTEMIC EFFECT: METHAEMOGLOBINAEMIA WITH HEADACHE, CARDIAC DYSRHYTHMIAS, DROP IN BLOOD PRESSURE, DYSPNOEA, AND SPASMS; PRINCIPAL SIGN: CYANOSIS (BLUE DISCOLOURATION OF THE

BLOOD).

FURTHER DATA:

OTHER DANGEROUS PROPERTIES CAN NOT BE

EXCLUDED.

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL

HYGIENE AND SAFETY PRACTICE.

#### SECTION 12. ECOLOGICAL INFORMATION

**TOXICITY** NO DATA AVAILABLE

PERSISTENCE AND DEGRADABILITY

NO DATA AVAILABLE

BIOACCUMULATIVE POTENTIAL NO DATA AVAILABLE

MOBILITY IN SOIL NO DATA AVAILABLE

RESULTS OF PBT AND VPVB ASSESSMENT

PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT

REQUIRED/NOT CONDUCTED

OTHER ADVERSE EFFECTS

WE HAVE NO QUANTITATIVE DATA CONCERNING THE ECOLOGICAL EFFECTS OF THIS PRODUCT.

FURTHER INFORMATION ON ECOLOGY

DEPENDING ON THE CONCENTRATION, PHOSPHORUS AND/OR NITROGEN COMPOUNDS MAY CONTRIBUTE TO THE EUTROPHICATION OF DRINKING-WATER

SUPPLIES.

DISCHARGE INTO THE ENVIRONMENT MUST BE

AVOIDED.

#### SECTION 13. DISPOSAL CONSIDERATIONS

#### WASTE TREATMENT METHODS

PRODUCT THIS COMBUSTIBLE MATERIAL MAY BE BURNED IN A

CHEMICAL INCINERATOR EQUIPPED WITH AN

AFTERBURNER AND SCRUBBER. OFFER SURPLUS AND

NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. CONTACT A LICENSED

PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE

OF THIS MATERIAL.

CONTAMINATED PACKAGING

DISPOSE OF AS UNUSED PRODUCT.

#### SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME: TOXIC, LIQUID, ORGANIC, N.O.S. (3-Fluoronitrobenzene)

UN NUMBER: 2810 CLASS: 6.1 PACKING GROUP: III

REPORTABLE QUANTITY

(RQ):

POISON INHALATION NO

HAZARD:

**IMDG** 

PROPER SHIPPING NAME: TOXIC, LIQUID, ORGANIC, N.O.S. (3-Fluoronitrobenzene)

UN NUMBER: 2810 CLASS: 6.1

PACKING GROUP: III

EMS-NO: F-A, S-A

**IATA** 

PROPER SHIPPING NAME: TOXIC, LIQUID, ORGANIC, N.O.S. (3-Fluoronitrobenzene)

UN NUMBER: 2810 CLASS: 6.1 PACKING GROUP: III

#### SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO

THE REPORTING REQUIREMENTS OF SARA TITLE III,

SECTION 302.

SARA 313 COMPONENTS THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL

COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION

313.

**SARA 311/312 HAZARDS** FIRE HAZARD, ACUTE HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

3-Fluoronitrobenzene 402-67-5

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

3-Fluoronitrobenzene 402-67-5

**CALIFORNIA PROP. 65 COMPONENTS** 

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

#### SECTION 16. OTHER INFORMATION

## FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

H227 COMBUSTIBLE LIQUID.

H301 + H311 + H331 TOXIC IF SWALLOWED, IN CONTACT WITH SKIN OR IF

INHALED.

H373 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED

OR REPEATED EXPOSURE.

MSDS LEGEND

MW: MOLECULAR WEIGHT MF: MOLECULAR FORMULA

VOC: VOLATILE ORGANIC COMPOUNDS

ACGIH: AMERICAN CONFERENCE OF GOVERNMENENTAL

INDUSTRIAL HYGINISTS

CAS: CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA)
TLV: THRESHOLD LIMIT VALUE (ACGIH)

IMPORTANT:

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