# Chem-Impex International Inc.

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# SAFETY DATA SHEET

#### SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 35516

NAME: Copper(II) nitrate hydrate

SYNONYMS: Cupric nitrate hydrate

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) OXIDIZING SOLIDS (CATEGORY 2), H272

ACUTE TOXICITY, ORAL (CATEGORY 4), H302 SKIN IRRITATION (CATEGORY 2), H315 SERIOUS EYE DAMAGE (CATEGORY 1), H318 SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 1), H400 LONG-TERM (CHRONIC) AQUATIC HAZARD (CATEGORY 1), H410

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)**

MAY INTENSIFY FIRE; OXIDIZER. H272 H302 HARMFUL IF SWALLOWED. H315 CAUSES SKIN IRRITATION. H318 CAUSES SERIOUS EYE DAMAGE.

H410 VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING

EFFECTS.

# PRECAUTIONARY STATEMENT(S)

P210 KEEP AWAY FROM HEAT.

P220 KEEP/STORE AWAY FROM CLOTHING/ COMBUSTIBLE

MATERIALS.

P221 TAKE ANY PRECAUTION TO AVOID MIXING WITH

COMBUSTIBLES.

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

PRODUCT.

P273 AVOID RELEASE TO THE ENVIRONMENT.

P280 WEAR PROTECTIVE GLOVES/ EYE PROTECTION/ FACE

PROTECTION.

P301 + P312 + P330IF SWALLOWED: CALL A POISON CENTER OR DOCTOR/

PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH.

IF ON SKIN: WASH WITH PLENTY OF SOAP AND P302 + P352

WATER.

IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR P305 + P351 + P338 + P310

> SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. IMMEDIATELY CALL A POISON CENTER/DOCTOR.

IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/

ATTENTION.

TAKE OFF CONTAMINATED CLOTHING AND WASH P362

BEFORE REUSE.

P370 + P378IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR

ALCOHOL-RESISTANT FOAM TO EXTINGUISH.

P391 COLLECT SPILLAGE.

DISPOSE OF CONTENTS/ CONTAINER TO AN P501

APPROVED WASTE DISPOSAL PLANT.

HAZARDS NOT **NONE** 

OTHERWISE CLASSIFIED

P332 + P313

# (HNOC) OR NOT COVERED BY GHS

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF:  $Cu(NO_3)_2 \cdot xH_2O$ 

MW: 187.56

CAS-NO. 13778-31-9

PURITY: ≥99.999% Metals basis (Cu : 26.5 - 27.7%)

# **HAZARDOUS COMPONENTS**

| COMPONENT             | CLASSIFICATION               | CONCENTRATION |
|-----------------------|------------------------------|---------------|
| Copper(II) nitrate hy | ydrate                       |               |
|                       | OX. SOL. 2; ACUTE TOX. 4;    | <= 100 %      |
|                       | SKIN IRRIT. 2; EYE DAM. 1;   |               |
|                       | AQUATIC ACUTE 1; AQUATIC     |               |
|                       | CHRONIC 1; H272, H302, H315, |               |
|                       | H318, H400, H410             |               |
|                       | M-FACTOR - AQUATIC ACUTE:    |               |
|                       | 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 WASH OFF WITH SOAP AND PLENTY OF WATER.

**CONTACT** CONSULT A PHYSICIAN.

IN CASE OF EYE RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT

**CONTACT** LEAST 15 MINUTES AND CONSULT A

PHYSICIAN.CONTINUE RINSING EYES DURING

TRANSPORT TO HOSPITAL.

**IF SWALLOWED** 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 DRY POWDER DRY SAND

**EXTINGUISHING MEDIA** 

SPECIAL HAZARDS NITROGEN OXIDES (NOX), COPPER OXIDES

ARISING FROM THE SUBSTANCE OR MIXTURE

SOBSTITUTE ON MINITORE

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 USE PERSONAL PROTECTIVE EQUIPMENT. AVOID PRECAUTIONS, DUST FORMATION. AVOID BREATHING VAPOURS, MIST OR GAS, ENSURE ADEQUATE VENTIL ATION

PROTECTIVEOR GAS. ENSURE ADEQUATE VENTILATION.EQUIPMENT ANDEVACUATE PERSONNEL TO SAFE AREAS. AVOID

**EMERGENCY** BREATHING DUST. **PROCEDURES** 

FOR PERSONAL PROTECTION SEE SECTION 8.

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

DISCHARGE INTO THE ENVIRONMENT MUST BE

AVOIDED.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP SWEEP UP AND SHOVEL. CONTAIN SPILLAGE, AND THEN COLLECT WITH AN ELECTRICALLY PROTECTED VACUUM CLEANER OR BY WET-BRUSHING AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS (SEE SECTION 13). KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

REFERENCE TO OTHER SECTIONS

FOR DISPOSAL SEE SECTION 13.

## SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

AVOID CONTACT WITH SKIN AND EYES. AVOID FORMATION OF DUST AND AEROSOLS.FURTHER PROCESSING OF SOLID MATERIALS MAY RESULT IN THE FORMATION OF COMBUSTIBLE DUSTS. THE POTENTIAL FOR COMBUSTIBLE DUST FORMATION SHOULD BE TAKEN INTO CONSIDERATION BEFORE

ADDITIONAL PROCESSING OCCURS.

PROVIDE APPROPRIATE EXHAUST VENTILATION AT PLACES WHERE DUST IS FORMED.KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.KEEP AWAY

FROM HEAT AND SOURCES OF IGNITION. FOR PRECAUTIONS SEE SECTION 2.2.

CONDITIONS FOR SAFE STORAGE, INCLUDING

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND

WELL-VENTILATED PLACE.

ANY INCOMPATIBILITIES HEAT SENSITIVE. MOISTURE SENSITIVE.

Store at RT

**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

| COMPONENT                  | CAS-NO.    | VALUE | CONTROL    | BASIS           |
|----------------------------|------------|-------|------------|-----------------|
|                            |            |       | PARAMETERS |                 |
| Copper(II) nitrate hydrate | 13778-31-9 | TWA   | 1 MG/M3    | USA. NIOSH      |
|                            |            |       |            | RECOMMENDED     |
|                            |            |       |            | EXPOSURE LIMITS |

| P | EL | 1 MG/M3 | CALIFORNIA          |
|---|----|---------|---------------------|
|   |    |         | PERMISSIBLE         |
|   |    |         | EXPOSURE LIMITS FOR |
|   |    |         | CHEMICAL            |
|   |    |         | CONTAMINANTS        |

#### **EXPOSURE CONTROLS**

APPROPRIATE **ENGINEERING** CONTROLS

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE. WASH HANDS BEFORE BREAKS AND AT THE END OF WORKDAY.

#### PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION

FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FOR 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. WASH AND DRY

HANDS.

**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 PARTICLE RESPIRATOR TYPE N100 (US) OR TYPE P3 (EN 143) 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. DISCHARGE INTO THE ENVIRONMENT MUST BE

AVOIDED.

#### **SECTION 9.** PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
ODOUR
ODOUR THRESHOLD
PH
MELTING
Blue crystalline powder
NO DATA AVAILABLE
NO DATA AVAILABLE
NO DATA AVAILABLE
114.5 °C (dec.)

DODIT/EDEEZDIC DODIT

POINT/FREEZING POINT BOILING POINT

FLASH POINT

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 2.32

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 THE SUBSTANCE OR MIXTURE IS CLASSIFIED AS

OXIDIZING WITH THE CATEGORY 2.

#### 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 AVOID MOISTURE.

INCOMPATIBLE REDUCING AGENTS, ORGANIC MATERIALS, POWDERED

**MATERIALS** METALS

HAZARDOUS DECOMPOSITION PRODUCTS HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS. - NITROGEN OXIDES (NOX),

**COPPER OXIDES** 

OTHER DECOMPOSITION PRODUCTS - NO DATA

**AVAILABLE** 

IN THE EVENT OF FIRE: SEE SECTION 5

# SECTION 11. TOXICOLOGICAL INFORMATION

#### INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY LD50 ORAL - RAT - 794 MG/KG

REMARKS: BEHAVIORAL: SOMNOLENCE (GENERAL DEPRESSED ACTIVITY). BEHAVIORAL: CONVULSIONS

OR EFFECT ON SEIZURE THRESHOLD.

INHALATION: NO DATA AVAILABLE

DERMAL: NO DATA AVAILABLE

NO DATA AVAILABLE

SKIN - RABBIT

CORROSION/IRRITATION RESULT: SEVERE SKIN IRRITATION

SERIOUS EYE EYES - RABBIT

**DAMAGE/EYE** RESULT: SEVERE EYE IRRITATION IRRITATION

**RESPIRATORY OR SKIN** 

**SENSITISATION** 

NO DATA AVAILABLE

GERM CELL MUTAGENICITY NO DATA AVAILABLE

CARCINOGENICITY

IARC: NO COMPONENT OF THIS PRODUCT PRESENT AT

LEVELS GREATER THAN OR EQUAL TO 0.1% IS

IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED

HUMAN CARCINOGEN BY IARC.

NTP: NO COMPONENT OF THIS PRODUCT PRESENT AT

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

CARCINOGEN BY NTP.

OSHA: NO COMPONENT OF THIS PRODUCT PRESENT AT

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: QU7400000

SYMPTOMS OF SYSTEMIC COPPER POISONING MAY INCLUDE: CAPILLARY DAMAGE, HEADACHE, COLD SWEAT, WEAK PULSE, AND KIDNEY AND LIVER DAMAGE, CENTRAL NERVOUS SYSTEM EXCITATION

FOLLOWED BY DEPRESSION, JAUNDICE,

CONVULSIONS, PARALYSIS, AND COMA. DEATH MAY OCCUR FROM SHOCK OR RENAL FAILURE. CHRONIC

COPPER POISONING IS TYPIFIED BY HEPATIC

CIRRHOSIS, BRAIN DAMAGE AND DEMYELINATION, KIDNEY DEFECTS, AND COPPER DEPOSITION IN THE

CORNEA AS EXEMPLIFIED BY HUMANS WITH

WILSON"S DISEASE. IT HAS ALSO BEEN REPORTED THAT COPPER POISONING HAS LEAD TO HEMOLYTIC ANEMIA AND ACCELERATES ARTERIOSCLEROSIS. MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE

OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES, AND SKIN, COUGH,

SHORTNESS OF BREATH, HEADACHE

STOMACH - IRREGULARITIES - BASED ON HUMAN

EVIDENCE

# 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** PBT/VPVB ASSESSMENT NOT AVAILABLE AS

VPVB ASSESSMENT CHEMICAL SAFETY ASSESSMENT NOT

REQUIRED/NOT CONDUCTED

AN ENVIRONMENTAL HAZARD CANNOT BE OTHER ADVERSE EFFECTS

EXCLUDED IN THE EVENT OF UNPROFESSIONAL

HANDLING OR DISPOSAL.

VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING

EFFECTS.

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

#### WASTE TREATMENT METHODS

**PRODUCT** OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS

> TO A LICENSED DISPOSAL COMPANY. BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL. DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND

SCRUBBER.

**CONTAMINATED PACKAGING** 

DISPOSE OF AS UNUSED PRODUCT.

#### SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME: OXIDIZING SOLID, CORROSIVE, N.O.S. (Copper(II) nitrate

hydrate)

UN NUMBER: 3085 CLASS: 5.1(8) PACKING GROUP: II REPORTABLE QUANTITY

(RQ):

100 LBS

POISON INHALATION

NO

HAZARD:

**IMDG** 

PROPER SHIPPING NAME: OXIDIZING SOLID, CORROSIVE, N.O.S. (Copper(II) nitrate

hydrate)

UN NUMBER: 3085 CLASS: 5.1 (8) PACKING GROUP:

EMS-NO: F-A, S-Q

**IATA** 

PROPER SHIPPING NAME: OXIDIZING SOLID, CORROSIVE, N.O.S. (Copper(II) nitrate

hydrate)

UN NUMBER: 3085 CLASS: 5.1 (8) PACKING GROUP: II

#### 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 THE FOLLOWING COMPONENTS ARE SUBJECT TO

REPORTING LEVELS ESTABLISHED BY SARA TITLE III,

SECTION 313:

CAS # REVISION DATE

Copper(II) nitrate hydrate 13778-31-9 02-16-1993

SARA 311/312 HAZARDS REACTIVITY HAZARD, ACUTE HEALTH HAZARD,

CHRONIC HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

CAS # REVISION DATE

Copper(II) nitrate hydrate 13778-31-9 02-16-1993

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS # REVISION DATE

Copper(II) nitrate hydrate 13778-31-9 02-16-1993

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS # REVISION DATE

Copper(II) nitrate hydrate 13778-31-9 02-16-1993

#### CALIFORNIA PROP. 65 COMPONENTS

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

# **SECTION 16. OTHER INFORMATION**

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

H272 MAY INTENSIFY FIRE; OXIDIZER.
 H302 HARMFUL IF SWALLOWED.
 H315 CAUSES SKIN IRRITATION.

H318 CAUSES SERIOUS EYE DAMAGE.

H410 VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING

EFFECTS.

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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