

LOVIBOND(R*) WATER TESTING
TINTOMETER(R*) GROUP

LOVIBOND(R*)

SAFETY DATA SHEET

ACC. TO OSHA HCS (HAZCOM 2012)

PRINTING DATE: 02/19/2019

REVIEWED ON: 02/19/2019

1 IDENTIFICATION

PRODUCT IDENTIFIER:

TRADE NAME: KS503 - 0.8M EDTA

CATALOGUE NUMBER:

56Z050398, 56U050313, 56L050313, 56U050373, 56L050373, DT020-04

APPLICATION OF THE SUBSTANCE / THE MIXTURE: REAGENT FOR WATER ANALYSIS

MANUFACTURER/SUPPLIER:

TINTOMETER INC.

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SARASOTA, FL 34243

USA

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WWW.LOVIBOND.US

MADE IN GERMANY

EMERGENCY TELEPHONE NUMBER: + 1 866 928 0789 (ENGLISH, FRENCH, SPANISH)

2 HAZARD(S) IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

GHS05: CORROSION

MET. CORR.1

H290: MAY BE CORROSIVE TO METALS.

SKIN CORR. 1B

H314: CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

EYE DAM. 1

H318: CAUSES SERIOUS EYE DAMAGE.

LABEL ELEMENTS:

GHS LABEL ELEMENTS:

THE PRODUCT IS CLASSIFIED AND LABELED ACCORDING TO THE HAZARD COMMUNICATION

STANDARD (HCS) .

HAZARD PICTOGRAMS:
GHS05: CORROSION

SIGNAL WORD: DANGER

HAZARD STATEMENTS:
H290: MAY BE CORROSIVE TO METALS.
H314: CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

PRECAUTIONARY STATEMENTS:

P260: DO NOT BREATHE MIST/VAPORS/SPRAY.

P280: WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION.

P301+P330+P331 IF SWALLOWED: RINSE MOUTH. DO NOT INDUCE VOMITING.

P303+P361+P353:

IF ON SKIN (OR HAIR):
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER OR
SHOWER.

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 A DOCTOR.

OTHER HAZARDS: NO FURTHER RELEVANT INFORMATION AVAILABLE.

3 COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERIZATION: MIXTURES

DESCRIPTION: AQUEOUS SOLUTION

COMPOSITION AND INFORMATION ON INGREDIENTS:
PERCENT RANGES ARE USED DUE TO THE CONFIDENTIAL PRODUCT INFORMATION.

CAS: 1310-73-2	SODIUM HYDROXIDE	2.5-<5%
EINECS: 215-185-5	MET. CORR.1, H290	
INDEX NUMBER: 011-002-00-6		
RTECS: WB4900000		

ADDITIONAL INFORMATION:
FOR THE WORDING OF THE LISTED HAZARD PHRASES REFER TO SECTION 16.

4 FIRST-AID MEASURES

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DESCRIPTION OF FIRST AID MEASURES:

GENERAL INFORMATION: IMMEDIATELY REMOVE ANY CLOTHING SOILED BY THE PRODUCT.

AFTER INHALATION: SUPPLY FRESH AIR.

AFTER SKIN CONTACT:

IMMEDIATELY WASH WITH POLYETHYLENE GLYCOL 400.

IMMEDIATELY RINSE WITH PLENTY OF WATER.

IMMEDIATE MEDICAL TREATMENT NECESSARY. FAILURE TO TREAT BURNS CAN PREVENT WOUNDS FROM HEALING.

AFTER EYE CONTACT:

RINSE OPENED EYE FOR SEVERAL MINUTES (AT LEAST 15 MIN) UNDER RUNNING WATER.
CALL A DOCTOR IMMEDIATELY.

AFTER SWALLOWING: RINSE OUT MOUTH AND THEN DRINK 1-2 GLASSES OF WATER.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

BURNS

AFTER INHALATION:

MUCOSAL IRRITATIONS, COUGH, BREATHING DIFFICULTY

POSSIBLE DAMAGES: DAMAGE OF RESPIRATORY TRACT

AFTER SWALLOWING:

STRONG CAUSTIC EFFECT

PAIN

DANGER: DANGER OF GASTRIC PERFORATION.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

IF SWALLOWED OR IN CASE OF VOMITING, DANGER OF ENTERING THE LUNGS.

LATER OBSERVATION FOR PNEUMONIA AND PULMONARY EDEMA.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA:

SUITABLE EXTINGUISHING AGENTS:

USE FIRE FIGHTING MEASURES THAT SUIT THE ENVIRONMENT.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

THE PRODUCT IS NOT COMBUSTIBLE.

FORMATION OF TOXIC GASES IS POSSIBLE DURING HEATING OR IN CASE OF FIRE.

IN CASE OF FIRE, THE FOLLOWING CAN BE RELEASED: NITROGEN OXIDES (NO_x)

ADVICE FOR FIREFIGHTERS:

PROTECTIVE EQUIPMENT:

WEAR SELF-CONTAINED RESPIRATORY PROTECTIVE DEVICE.

WEAR FULLY PROTECTIVE SUIT.

ADDITIONAL INFORMATION:

COLLECT CONTAMINATED FIRE FIGHTING WATER SEPARATELY. IT MUST NOT ENTER THE SEWAGE SYSTEM.

DISPOSE OF FIRE DEBRIS AND CONTAMINATED FIRE FIGHTING WATER IN ACCORDANCE WITH OFFICIAL REGULATIONS.

AMBIENT FIRE MAY LIBERATE HAZARDOUS VAPORS.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

ADVICE FOR NON-EMERGENCY PERSONNEL:
WEAR PROTECTIVE EQUIPMENT. KEEP UNPROTECTED PERSONS AWAY.

AVOID SUBSTANCE CONTACT.

ENSURE ADEQUATE VENTILATION

USE RESPIRATORY PROTECTIVE DEVICE AGAINST THE EFFECTS OF FUMES/DUST/
AEROSOL.

ADVICE FOR EMERGENCY RESPONDERS:
PROTECTIVE EQUIPMENT: SEE SECTION 8

ENVIRONMENTAL PRECAUTIONS:
DO NOT ALLOW PRODUCT TO REACH SEWAGE SYSTEM OR ANY WATER COURSE.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:
ENSURE ADEQUATE VENTILATION.
USE NEUTRALIZING AGENT.
ABSORB WITH LIQUID-BINDING MATERIAL (SAND, DIATOMITE, UNIVERSAL BINDERS).
DISPOSE CONTAMINATED MATERIAL AS WASTE ACCORDING TO ITEM 13.

REFERENCE TO OTHER SECTIONS:
SEE SECTION 7 FOR INFORMATION ON SAFE HANDLING.
SEE SECTION 8 FOR INFORMATION ON PERSONAL PROTECTION EQUIPMENT.
SEE SECTION 13 FOR DISPOSAL INFORMATION.

7 HANDLING AND STORAGE

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PRECAUTIONS FOR SAFE HANDLING:

ADVICE ON SAFE HANDLING: PREVENT FORMATION OF AEROSOLS.

HYGIENE MEASURES:
DO NOT INHALE GASES / FUMES / AEROSOLS.
DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING.
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.
WASH HANDS BEFORE BREAKS AND AT THE END OF WORK.
DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

STORAGE:

REQUIREMENTS TO BE MET BY STOREROOMS AND RECEPTACLES:
STORE IN A COOL LOCATION.

INFORMATION ABOUT STORAGE IN ONE COMMON STORAGE FACILITY:
STORE AWAY FROM METALS.
DO NOT STORE TOGETHER WITH ACIDS.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS:
PROTECT FROM HEAT AND DIRECT SUNLIGHT.
PROTECT FROM EXPOSURE TO THE LIGHT.
PROTECT FROM HUMIDITY AND WATER.

RECOMMENDED STORAGE TEMPERATURE: 20 DEG. C +/- 5 DEG. C (APPROX. 68 DEG. F)

SPECIFIC END USE(S): NO FURTHER RELEVANT INFORMATION AVAILABLE.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS:

COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE:

CAS: 1310-73-2 SODIUM HYDROXIDE

PEL (USA):
LONG-TERM VALUE: 2 MG/M3

REL (USA):
CEILING LIMIT VALUE: 2 MG/M3

TLV (USA):
CEILING LIMIT VALUE: 2 MG/M3

EL (CANADA):
CEILING LIMIT VALUE: 2 MG/M3

EV (CANADA):
CEILING LIMIT VALUE: 2 MG/M3

ADDITIONAL INFORMATION:
THE LISTS THAT WERE VALID DURING THE CREATION WERE USED AS BASIS.

ENGINEERING MEASURES:
TECHNICAL MEASURES AND APPROPRIATE WORKING OPERATIONS SHOULD BE GIVEN
PRIORITY OVER THE USE OF PERSONAL PROTECTIVE EQUIPMENT. SEE ITEM 7.

PERSONAL PROTECTIVE EQUIPMENT:

BREATHING EQUIPMENT:
USE RESPIRATORY PROTECTIVE DEVICE AGAINST THE EFFECTS OF
FUMES/DUST/AEROSOL.

RECOMMENDED FILTER DEVICE FOR SHORT TERM USE: FILTER P2

PROTECTION OF HANDS:
PROTECTIVE GLOVES
PREVENTIVE SKIN PROTECTION BY USE OF SKIN-PROTECTING AGENTS IS RECOMMENDED.
AFTER USE OF GLOVES APPLY SKIN-CLEANING AGENTS AND SKIN COSMETICS.

MATERIAL OF GLOVES:
NITRILE RUBBER, NBR
RECOMMENDED THICKNESS OF THE MATERIAL: >= 0.11 MM

PENETRATION TIME OF GLOVE MATERIAL:

VALUE FOR THE PERMEATION: LEVEL <= 1 (10 MIN)

THE EXACT BREAK THROUGH TIME HAS TO BE FOUND OUT BY THE MANUFACTURER OF THE PROTECTIVE GLOVES AND HAS TO BE OBSERVED.

EYE PROTECTION: TIGHTLY SEALED GOGGLES

BODY PROTECTION: PROTECTIVE WORK CLOTHING

LIMITATION AND SUPERVISION OF EXPOSURE INTO THE ENVIRONMENT:
DO NOT ALLOW PRODUCT TO REACH SEWAGE SYSTEM OR ANY WATER COURSE.

9 PHYSICAL AND CHEMICAL PROPERTIES

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INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:

FORM / PHYSICAL STATE: FLUID

COLOR: COLORLESS

ODOR: ODORLESS

ODOR THRESHOLD: NOT APPLICABLE.

PH-VALUE AT 20 DEG. C (68 DEG. F): 12

MELTING POINT/FREEZING POINT: NOT DETERMINED.

INITIAL BOILING POINT AND BOILING RANGE:
NOT APPLICABLE.
NOT DETERMINED.

FLASH POINT: NOT APPLICABLE.

FLAMMABILITY (SOLID, GAS): NOT APPLICABLE.

DECOMPOSITION TEMPERATURE: NOT DETERMINED.

AUTO-IGNITION TEMPERATURE: PRODUCT IS NOT SELF-IGNITING.

DANGER OF EXPLOSION: PRODUCT DOES NOT PRESENT AN EXPLOSION HAZARD.

FLAMMABILITY OR EXPLOSIVE LIMITS:
LOWER: NOT APPLICABLE.
UPPER: NOT APPLICABLE.

OXIDIZING PROPERTIES: NONE

VAPOR PRESSURE: NOT DETERMINED.

DENSITY AT 20 DEG. C (68 DEG. F): 1.2 G/CM3 (10.01 LBS/GAL)

RELATIVE DENSITY: NOT DETERMINED.

VAPOR DENSITY: NOT DETERMINED.

EVAPORATION RATE: NOT DETERMINED.

SOLUBILITY(IES):

WATER: FULLY MISCIBLE.

PARTITION COEFFICIENT (N-OCTANOL/WATER): NOT DETERMINED.

VISCOSITY: NOT DETERMINED.

SOLVENT CONTENT:

ORGANIC SOLVENTS: 0.0%

WATER: >65%

SOLIDS CONTENT: <35%

OTHER INFORMATION: NO FURTHER RELEVANT INFORMATION AVAILABLE.

10 STABILITY AND REACTIVITY

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REACTIVITY: SEE SECTION "POSSIBILITY OF HAZARDOUS REACTIONS"

CHEMICAL STABILITY: STABLE AT AMBIENT TEMPERATURE (ROOM TEMPERATURE).

POSSIBILITY OF HAZARDOUS REACTIONS:

CORROSIVE ACTION ON METALS.

CORRODES ALUMINIUM AND ZINC.

REACTS WITH OXIDIZING AGENTS.

EXOTHERMIC REACTION WITH ACIDS.

CONDITIONS TO AVOID: STRONG HEATING (DECOMPOSITION)

INCOMPATIBLE MATERIALS:

METALS

LIGHT METALS

ALUMINUM, COPPER, ZINC, METAL IONS

ORGANIC SUBSTANCES

HAZARDOUS DECOMPOSITION PRODUCTS: SEE SECTION 5

11 TOXICOLOGICAL INFORMATION

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INFORMATION ON TOXICOLOGICAL EFFECTS:

ACUTE TOXICITY:

BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET.

LD/LC50 VALUES THAT ARE RELEVANT FOR CLASSIFICATION:

CAS: 1310-73-2 SODIUM HYDROXIDE

ORAL:

LDLO: 500 MG/KG (RABBIT) (IUCLID)

PRIMARY IRRITANT EFFECT:

ON THE SKIN:

CAUSTIC EFFECT ON SKIN AND MUCOUS MEMBRANES.

CAUSES SEVERE SKIN BURNS.

ON THE EYE:
CAUSES SERIOUS EYE DAMAGE.
RISK OF BLINDNESS!

SENSITIZATION:
BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET.

INFORMATION ON COMPONENTS:

CAS: 1310-73-2 SODIUM HYDROXIDE

SENSITIZATION:
PATCH TEST (HUMAN): (NEGATIVE)

CARCINOGENIC CATEGORIES:

IARC (INTERNATIONAL AGENCY FOR RESEARCH ON CANCER):
NONE OF THE INGREDIENTS IS LISTED.

NTP (NATIONAL TOXICOLOGY PROGRAM): NONE OF THE INGREDIENTS IS LISTED.

OSHA-CA (OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION):
NONE OF THE INGREDIENTS IS LISTED.

OTHER INFORMATION: SEE SECTION 8 / 15

SYNERGISTIC PRODUCTS: NONE

CMR EFFECTS (CARCINOGENITY, MUTAGENICITY AND TOXICITY FOR REPRODUCTION):

THE FOLLOWING STATEMENTS REFER TO THE MIXTURE:

GERM CELL MUTAGENICITY:
BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET.

CARCINOGENICITY:
BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET.

REPRODUCTIVE TOXICITY:
BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET.

STOT (SPECIFIC TARGET ORGAN TOXICITY) - SINGLE EXPOSURE:
BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET.

STOT (SPECIFIC TARGET ORGAN TOXICITY) - REPEATED EXPOSURE:
BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET.

ASPIRATION HAZARD:
BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET.

ADDITIONAL TOXICOLOGICAL INFORMATION:
SWALLOWING WILL LEAD TO A STRONG CAUSTIC EFFECT ON MOUTH AND THROAT AND TO
THE DANGER OF PERFORATION OF ESOPHAGUS AND STOMACH.

12 ECOLOGICAL INFORMATION

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TOXICITY:

AQUATIC TOXICITY:

CAS: 1310-73-2 SODIUM HYDROXIDE

LC50: 40.4 MG/L/48H (CERIODAPHNIA SP.) (ECHA)

BACTERIAL TOXICITY:

CAS: 1310-73-2 SODIUM HYDROXIDE

EC50: 22 MG/L (PHOTOBACTERIUM PHOSPHOREUM) (15 MIN)

PERSISTENCE AND DEGRADABILITY: NO FURTHER RELEVANT INFORMATION AVAILABLE.

BIOACCUMULATIVE POTENTIAL: NO FURTHER RELEVANT INFORMATION AVAILABLE.

MOBILITY IN SOIL: NO FURTHER RELEVANT INFORMATION AVAILABLE.

OTHER ADVERSE EFFECTS: AVOID TRANSFER INTO THE ENVIRONMENT.

13 DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS:

RECOMMENDATION:

MUST NOT BE DISPOSED OF TOGETHER WITH HOUSEHOLD GARBAGE. DO NOT ALLOW PRODUCT TO REACH SEWAGE SYSTEM.

HAND OVER TO HAZARDOUS WASTE DISPOSERS.

UNCLEANED PACKAGINGS:

RECOMMENDATION: DISPOSAL MUST BE MADE ACCORDING TO OFFICIAL REGULATIONS.

RECOMMENDED CLEANSING AGENT: WATER, IF NECESSARY WITH CLEANSING AGENTS.

14 TRANSPORT INFORMATION

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UN-NUMBER:

DOT, IMDG, IATA: UN1824

UN PROPER SHIPPING NAME:

DOT: SODIUM HYDROXIDE SOLUTION

IMDG, IATA: SODIUM HYDROXIDE SOLUTION MIXTURE

TRANSPORT HAZARD CLASS(ES) :

DOT, IMDG, IATA:

CORROSIVE, CLASS/DIVISION 8

CLASS 8 - CORROSIVE

CLASS 8, CORROSIVES

CLASS: 8 CORROSIVE SUBSTANCES

LABEL: 8

PACKING GROUP:
DOT, IMDG, IATA: III

ENVIRONMENTAL HAZARDS:
MARINE POLLUTANT: NO

SPECIAL PRECAUTIONS FOR USER:
WARNING: CORROSIVE SUBSTANCES

DANGER CODE (KEMLER): 80

EMS NUMBER: F-A,S-B

SEGREGATION GROUPS: ALKALIS

STOWAGE CATEGORY: A

SEGREGATION CODE: SG35 STOW "SEPARATED FROM" ACIDS.

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 AND THE IBC CODE:
NOT APPLICABLE.

TRANSPORT/ADDITIONAL INFORMATION:

DOT:

QUANTITY LIMITATIONS:
ON PASSENGER AIRCRAFT/RAIL: 5 L
ON CARGO AIRCRAFT ONLY: 60 L

IMDG:
LIMITED QUANTITIES (LQ): 5L

EXCEPTED QUANTITIES (EQ):
CODE: E1
MAXIMUM NET QUANTITY PER INNER PACKAGING: 30 ML
MAXIMUM NET QUANTITY PER OUTER PACKAGING: 1000 ML

15 REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE
SUBSTANCE OR MIXTURE:

SARA:

SECTION 355 (EXTREMELY HAZARDOUS SUBSTANCES):
NONE OF THE INGREDIENTS IS LISTED.

SECTION 313 (SPECIFIC TOXIC CHEMICAL LISTINGS):
NONE OF THE INGREDIENTS IS LISTED.

TSCA (TOXIC SUBSTANCES CONTROL ACT): ALL INGREDIENTS ARE LISTED.

PROPOSITION 65:

CHEMICALS KNOWN TO CAUSE CANCER: NONE OF THE INGREDIENTS IS LISTED.

CHEMICALS KNOWN TO CAUSE REPRODUCTIVE TOXICITY FOR FEMALES:
NONE OF THE INGREDIENTS IS LISTED.

CHEMICALS KNOWN TO CAUSE REPRODUCTIVE TOXICITY FOR MALES:
NONE OF THE INGREDIENTS IS LISTED.

CHEMICALS KNOWN TO CAUSE DEVELOPMENTAL TOXICITY:
NONE OF THE INGREDIENTS IS LISTED.

NEW JERSEY RIGHT-TO-KNOW LIST:

CAS: 1310-73-2 SODIUM HYDROXIDE

NEW JERSEY SPECIAL HAZARDOUS SUBSTANCE LIST:

CAS: 1310-73-2 SODIUM HYDROXIDE CO, R1

PENNSYLVANIA RIGHT-TO-KNOW LIST:

CAS: 1310-73-2 SODIUM HYDROXIDE

PENNSYLVANIA SPECIAL HAZARDOUS SUBSTANCE LIST:

CAS: 1310-73-2 SODIUM HYDROXIDE E

EPA (ENVIRONMENTAL PROTECTION AGENCY): NONE OF THE INGREDIENTS IS LISTED.

NIOSH-CA (NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH):
NONE OF THE INGREDIENTS IS LISTED.

INFORMATION ABOUT LIMITATION OF USE:
EMPLOYMENT RESTRICTIONS CONCERNING YOUNG PERSONS MUST BE OBSERVED.

CHEMICAL SAFETY ASSESSMENT:
A CHEMICAL SAFETY ASSESSMENT HAS NOT BEEN CARRIED OUT.

16 OTHER INFORMATION

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THIS INFORMATION IS BASED ON OUR PRESENT KNOWLEDGE. HOWEVER, THIS SHALL NOT
CONSTITUTE A GUARANTEE FOR ANY SPECIFIC PRODUCT FEATURES AND SHALL NOT
ESTABLISH A LEGALLY VALID CONTRACTUAL RELATIONSHIP.

RELEVANT PHRASES:
H290: MAY BE CORROSIVE TO METALS.

DATE OF PREPARATION / LAST REVISION: 02/19/2019 / 4

ABBREVIATIONS AND ACRONYMS:

IATA-DGR:
DANGEROUS GOODS REGULATIONS BY THE "INTERNATIONAL AIR TRANSPORT
ASSOCIATION" (IATA)

ICAO: INTERNATIONAL CIVIL AVIATION ORGANIZATION

ICAO-TI:
TECHNICAL INSTRUCTIONS BY THE "INTERNATIONAL CIVIL AVIATION ORGANIZATION"
(ICAO)

EC50: EFFECTIVE CONCENTRATION, 50 PERCENT (IN VIVO)

OECD: ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

STOT: SPECIFIC TARGET ORGAN TOXICITY

SE: SINGLE EXPOSURE

RE: REPEATED EXPOSURE

EC50: HALF MAXIMAL EFFECTIVE CONCENTRATION

IC50: HALF MAXIMAL INHIBITORY CONCENTRATION

NOEL OR NOEC: NO OBSERVED EFFECT LEVEL OR CONCENTRATION

ACGIH(R*) - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS

A1 - CONFIRMED HUMAN CARCINOGEN

A2 - SUSPECTED HUMAN CARCINOGEN

A3 - CONFIRMED ANIMAL CARCINOGEN WITH UNKNOWN RELEVANCE TO HUMANS

A4 - NOT CLASSIFIABLE AS A HUMAN CARCINOGEN

A5 - NOT SUSPECTED AS A HUMAN CARCINOGEN

IARC - INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

GROUP 1 - CARCINOGENIC TO HUMANS

GROUP 2A - PROBABLY CARCINOGENIC TO HUMANS

GROUP 2B - POSSIBLY CARCINOGENIC TO HUMANS

GROUP 3 - NOT CLASSIFIABLE AS TO CARCINOGENICITY TO HUMANS

GROUP 4 - PROBABLY NOT CARCINOGENIC TO HUMANS

NTP - NATIONAL TOXICOLOGY PROGRAM, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

GROUP K - KNOWN TO BE HUMAN CARCINOGENS

GROUP R - REASONABLY ANTICIPATED TO BE HUMAN CARCINOGENS

IMDG: INTERNATIONAL MARITIME CODE FOR DANGEROUS GOODS

DOT: US DEPARTMENT OF TRANSPORTATION

IATA: INTERNATIONAL AIR TRANSPORT ASSOCIATION

EINECS: EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES

ELINCS: EUROPEAN LIST OF NOTIFIED CHEMICAL SUBSTANCES

CAS: CHEMICAL ABSTRACTS SERVICE (DIVISION OF THE AMERICAN CHEMICAL SOCIETY)

LC50: LETHAL CONCENTRATION, 50 PERCENT

LD50: LETHAL DOSE, 50 PERCENT

NIOSH: NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY

OSHA: OCCUPATIONAL SAFETY & HEALTH

TLV: THRESHOLD LIMIT VALUE

PEL: PERMISSIBLE EXPOSURE LIMIT

REL: RECOMMENDED EXPOSURE LIMIT

MET. CORR.1: CORROSIVE TO METALS - CATEGORY 1

SKIN CORR. 1B: SKIN CORROSION/IRRITATION - CATEGORY 1B

EYE DAM. 1: SERIOUS EYE DAMAGE/EYE IRRITATION - CATEGORY 1

SOURCES

DATA ARISE FROM SAFETY DATA SHEETS, REFERENCE WORKS AND LITERATURE.

ECOTOX DATABASE

IUCLID (INTERNATIONAL UNIFORM CHEMICAL INFORMATION DATABASE)

ECHA: EUROPEAN CHEMICALS AGENCY [HTTP://ECHA.EUROPA.EU](http://echa.europa.eu)

* DATA COMPARED TO THE PREVIOUS VERSION ALTERED.

US