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SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 43551

NAME: 2-Allyloxytetrahydropyran

SYNONYMS: Tetrahydro-2-allyloxy-2*H*-pyran

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 3), H226 ACUTE TOXICITY, ORAL (CATEGORY 4), H302 SKIN IRRITATION (CATEGORY 2), H315 SERIOUS EYE DAMAGE (CATEGORY 1), H318 SKIN SENSITISATION (CATEGORY 1), H317 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 3), RESPIRATORY SYSTEM, H335

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

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

PICTOGRAM

SIGNAL WORD

HAZARD STATEMENT(S)

H226	FLAMMABLE LIQUID AND VAPOR.	
H302	HARMFUL IF SWALLOWED.	
H315	CAUSES SKIN IRRITATION.	
H317	MAY CAUSE AN ALLERGIC SKIN REACTION.	
H318	CAUSES SERIOUS EYE DAMAGE.	
H335	MAY CAUSE RESPIRATORY IRRITATION.	

P

PRECAUTIONARY STATEMENT(S)				
P210	KEEP AWAY FROM HEAT/ SPARKS/ OPEN FLAMES/ HOT			
	SURFACES. NO SMOKING.			
P233	KEEP CONTAINER TIGHTLY CLOSED.			
P240	GROUND/BOND CONTAINER AND RECEIVING			
	EQUIPMENT.			
P241	USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/			
	LIGHTING/ EQUIPMENT.			
P242	USE ONLY NON-SPARKING TOOLS.			
P243	TAKE PRECAUTIONARY MEASURES AGAINST STATIC			
	DISCHARGE.			
P261	AVOID BREATHING DUST/ FUME/ GAS/ MIST/			
	VAPOURS/ 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.			
P272	CONTAMINATED WORK CLOTHING MUST NOT BE			
	ALLOWED OUT OF THE WORKPLACE.			
P280	WEAR PROTECTIVE GLOVES/ EYE PROTECTION/ FACE			
	PROTECTION.			
P301 + P312 + P330	IF SWALLOWED: CALL A POISON CENTER OR DOCTOR/			
	PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH.			
P303 + P361 + P353	IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL			
	CONTAMINATED CLOTHING. RINSE SKIN WITH			
	WATER/ SHOWER.			
P304 + P340 + P312	IF INHALED: REMOVE PERSON TO FRESH AIR AND			
	KEEP COMFORTABLE FOR BREATHING. CALL A			
	POISON CENTER/DOCTOR IF YOU FEEL UNWELL.			
P305 + P351 + P338 + P310	IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR			
	SEVERAL MINUTES. REMOVE CONTACT LENSES, IF			

	PRESENT AND EASY TO DO. CONTINUE RINSING.
	IMMEDIATELY CALL A POISON CENTER/DOCTOR.
P333 + P313	IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL
	ADVICE/ ATTENTION.
P362	TAKE OFF CONTAMINATED CLOTHING AND WASH
	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
OTHERWISE CLASSIFIED
(HNOC) OR NOT
COVERED BY GHS

MAY FORM EXPLOSIVE PEROXIDES.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: $C_8H_{14}O_2$

MW: 142.20

CAS-NO. 4203-49-0

PURITY: $\geq 95\%$ (GC)

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION		
2-ALLYLOXYTETRAHYDROPYRAN				
	FLAM. LIQ. 3; ACUTE TOX. 4; SKIN IRRIT. 2; EYE DAM. 1; SKIN SENS. 1; STOT SE 3; H226, H302, H315, H318, H317, H335	<= 100 %		
POTASSIUM CARBONATE				
	SKIN IRRIT. 2; EYE IRRIT. 2A; STOT SE 3; H315, H319, H335	<= 100 %		

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

SECTION 4. 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

TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING, RINSE SKIN WITH WATER/ SHOWER.

CONSULT A PHYSICIAN.

IN CASE OF EYE

CONTACT

RINSE OUT WITH PLENTY OF WATER. IMMEDIATELY CALL IN OPHTHALMOLOGIST. REMOVE CONTACT

LENSES.

IF SWALLOWED IMMEDIATELY MAKE VICTIM DRINK WATER (TWO

GLASSES AT MOST). 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 SUITABLE EXTINGUISHING MEDIA

EXTINGUISHING MEDIA FOAM CARBON DIOXIDE (CO2) DRY POWDER

UNSUITABLE EXTINGUISHING MEDIA

FOR THIS SUBSTANCE/MIXTURE NO LIMITATIONS OF

EXTINGUISHING AGENTS ARE GIVEN.

SPECIAL HAZARDS CARBON OXIDES, POTASSIUM OXIDES

ARISING FROM THE COMBUSTIBLE.

SUBSTANCE OR MIXTURE VAPORS ARE HEAVIER THAN AIR AND MAY SPREAD

ALONG FLOORS.

FORMS EXPLOSIVE MIXTURES WITH AIR AT ELEVATED

TEMPERATURES.

DEVELOPMENT OF HAZARDOUS COMBUSTION GASES

OR VAPOURS POSSIBLE IN THE EVENT OF FIRE.

ADVICE FOR FIREFIGHTERS

STAY IN DANGER AREA ONLY WITH SELF-CONTAINED BREATHING APPARATUS, PREVENT SKIN CONTACT BY

KEEPING A SAFE DISTANCE OR BY WEARING

SUITABLE PROTECTIVE CLOTHING.

FURTHER INFORMATION

REMOVE CONTAINER FROM DANGER ZONE AND COOL WITH WATER. PREVENT FIRE EXTINGUISHING WATER FROM CONTAMINATING SURFACE WATER OR

THE GROUND WATER SYSTEM.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL
PRECAUTIONS,
PROTECTIVE
EQUIPMENT AND
EMERGENCY
PROCEDURES

ADVICE FOR NON-EMERGENCY PERSONNEL: DO NOT BREATHE VAPORS, AEROSOLS. AVOID SUBSTANCE CONTACT. ENSURE ADEQUATE VENTILATION. KEEP AWAY FROM HEAT AND SOURCES OF IGNITION.

EVACUATE THE DANGER AREA, OBSERVE

EMERGENCY PROCEDURES, CONSULT AN EXPERT. FOR

PERSONAL PROTECTION SEE SECTION 8.

ENVIRONMENTAL PRECAUTIONS

DO NOT LET PRODUCT ENTER DRAINS. RISK OF

EXPLOSION.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP COVER DRAINS. COLLECT, BIND, AND PUMP OFF SPILLS. OBSERVE POSSIBLE MATERIAL RESTRICTIONS (SEE SECTIONS 7 AND 10). TAKE UP WITH LIQUID-ABSORBENT MATERIAL (E.G. CHEMIZORB). DISPOSE

OF PROPERLY. CLEAN UP AFFECTED AREA.

REFERENCE TO OTHER SECTIONS

FOR DISPOSAL SEE SECTION 13.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

KEEP AWAY FROM OPEN FLAMES, HOT SURFACES AND SOURCES OF IGNITION.TAKE PRECAUTIONARY

MEASURES AGAINST STATIC DISCHARGE.

IMMEDIATELY CHANGE CONTAMINATED CLOTHING. APPLY PREVENTIVE SKIN PROTECTION. WASH HANDS AND FACE AFTER WORKING WITH SUBSTANCE.

FOR PRECAUTIONS SEE SECTION 2.2.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. KEEP AWAY FROM HEAT AND SOURCES OF IGNITION.

Store at 2 - 8 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.

EXPOSURE CONTROLS

APPROPRIATEIMMEDIATELY CHANGE CONTAMINATED CLOTHING.ENGINEERINGAPPLY PREVENTIVE SKIN PROTECTION. WASH HANDSCONTROLSAND FACE AFTER WORKING WITH SUBSTANCE.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION USE EQUIPMENT FOR EYE PROTECTION TESTED AND

APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).

TIGHTLY FITTING SAFETY GOGGLES

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 REQUIRED WHEN VAPOURS/AEROSOLS ARE

PROTECTION GENERATED.

OUR RECOMMENDATIONS ON FILTERING RESPIRATORY

PROTECTION ARE BASED ON THE FOLLOWING STANDARDS: DIN EN 143, DIN 14387 AND OTHER

ACCOMPANYING STANDARDS RELATING TO THE USED

RESPIRATORY PROTECTION SYSTEM.

CONTROL OF DO NOT LET PRODUCT ENTER DRAINS. RISK OF

ENVIRONMENTAL EXPLOSION. **EXPOSURE**

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Colorless to almost clear liquid

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

MELTING

POINT/FREEZING POINT

BOILING POINT 75 °C/25 mmHg

FLASH POINT 35 °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 0.96

WATER SOLUBILITY NO DATA AVAILABLE PARTITION COEFFICIENT: LOG POW: 1.782

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 FORMATION OF PEROXIDES POSSIBLE.

VAPOR/AIR-MIXTURES ARE EXPLOSIVE AT INTENSE

WARMING.

CHEMICAL STABILITY THE PRODUCT IS CHEMICALLY STABLE UNDER

STANDARD AMBIENT CONDITIONS (ROOM

TEMPERATURE).

CONTAINS THE FOLLOWING STABILIZER(S):

POTASSIUM CARBONATE (1 %)

POSSIBILITY OF HAZARDOUS REACTIONS NO DATA AVAILABLE

CONDITIONS TO AVOID

AIR SENSITIVE.

HEATING. MOISTURE.

INCOMPATIBLE MATERIALS

STRONG OXIDIZING AGENTS

HAZARDOUS

DECOMPOSITION

PRODUCTS

PEROXIDES

IN THE EVENT OF FIRE: SEE SECTION 5

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY ACUTE TOXICITY ESTIMATE ORAL - 499.1 MG/KG

(CALCULATION METHOD)

INHALATION: NO DATA AVAILABLE

ACUTE TOXICITY ESTIMATE DERMAL - > 5,000 MG/KG

(CALCULATION METHOD)

NO DATA AVAILABLE

SKIN NO DATA AVAILABLE

CORROSION/IRRITATION

SERIOUS EYE DAMAGE/EYE IRRITATION NO DATA AVAILABLE

RESPIRATORY OR SKIN

SENSITISATION

NO DATA AVAILABLE

GERM CELL NO DATA AVAILABLE MUTAGENICITY

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

INHALATION - MAY CAUSE RESPIRATORY IRRITATION.

SPECIFIC TARGET ORGAN TOXICITY -REPEATED EXPOSURE NO DATA AVAILABLE

ASPIRATION HAZARD NO DATA AVAILABLE

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

NOT BEEN THOROUGHLY INVESTIGATED.

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 NO DATA AVAILABLE

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCT WASTE MATERIAL MUST BE DISPOSED OF IN

ACCORDANCE WITH THE NATIONAL AND LOCAL REGULATIONS. LEAVE CHEMICALS IN ORIGINAL CONTAINERS. NO MIXING WITH OTHER WASTE. HANDLE UNCLEANED CONTAINERS LIKE THE PRODUCT ITSELF. SEE FOR PROCESSES REGARDING THE RETURN OF CHEMICALS AND CONTAINERS, OR

CONTACT US THERE IF YOU HAVE FURTHER

QUESTIONS.

CONTAMINATED PACKAGING

DISPOSE OF AS UNUSED PRODUCT.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME: ETHERS, N.O.S. (2-Allyloxytetrahydropyran)

UN NUMBER: 32' CLASS: 3 PACKING GROUP: III

REPORTABLE QUANTITY

(RQ):

POISON INHALATION NO

HAZARD:

IMDG

PROPER SHIPPING NAME: ETHERS, N.O.S. (2-Allyloxytetrahydropyran)

UN NUMBER: 3271
CLASS: 3
PACKING GROUP: III
EMS-NO: F-E, S-D

IATA

PROPER SHIPPING NAME: ETHERS, N.O.S. (2-Allyloxytetrahydropyran)

UN NUMBER: 3271 CLASS: 3 PACKING GROUP: III

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS THIS MATERIAL DOES NOT CONTAIN ANY

COMPONENTS WITH A SECTION 302 EHS TPQ.

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

2-Allyloxytetrahydropyran 4203-49-0

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

2-Allyloxytetrahydropyran 4203-49-0 POTASSIUM CARBONATE 584-08-7

SECTION 16. OTHER INFORMATION

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

H226 FLAMMABLE LIQUID AND VAPOR.

H302 HARMFUL IF SWALLOWED. H315 CAUSES SKIN IRRITATION.

H317 MAY CAUSE AN ALLERGIC SKIN REACTION.

H318 CAUSES SERIOUS EYE DAMAGE.

H335 MAY CAUSE RESPIRATORY IRRITATION.

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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