

## SAFETY DATA SHEET

## [1.PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : AMPHITOL 20N  
 SUPPLIER : Kao Corporation  
 ADDRESS : 1-3,Bunka 2-chome,Sumida-ku,Tokyo 131-8501 Japan  
 DIVISION : Global Chemical Business  
 TELEPHONE NUMBER : 81-3-5630-7700  
 FAX NUMBER : 81-3-5630-7889  
 E-MAIL ADDRESS : chemical@kao.co.jp  
 EMERGENCY TELEPHONE NUMBER : 81-3-5630-7700  
 RECOMMENDED USE :  
 AND RESTRICTIONS ON USE :

## [2.HAZARDS IDENTIFICATION]

## GHS CLASSIFICATION

PHYSICAL AND CHEMICAL HAZARDS : Not classified

## HEALTH HAZARDS

ACUTE TOXICITY (Oral) : Not classified  
 ACUTE TOXICITY (Dermal) : Not classified  
 ACUTE TOXICITY (Inhalation) : Not applicable(Vapours)  
 SKIN CORROSION / IRRITATION : Category 2  
 SERIOUS EYE DAMAGE / EYE IRRITATION : Category 1  
 RESPIRATORY SENSITIZATION : Classification not possible  
 SKIN SENSITIZATION : Not classified  
 GERM CELL MUTAGENICITY : Not classified  
 CARCINOGENICITY : Not classified  
 REPRODUCTIVE TOXICITY : Not classified  
 SPECIFIC TARGET ORGAN TOXICITY  
 - SINGLE EXPOSURE : Classification not possible  
 - REPEATED EXPOSURE : Not classified  
 ASPIRATION HAZARD : Classification not possible

## ENVIRONMENTAL HAZARDS

## HAZARDOUS TO THE AQUATIC ENVIRONMENT

- ACUTE HAZARD : Category 1  
 - LONG-TERM HAZARD : Category 2  
 - HAZARDOUS TO THE OZONE LAYER : Classification not possible

## GHS LABEL ELEMENTS

## PICTOGRAMS OR SYMBOLS :



SIGNAL WORD : Danger  
 HAZARD STATEMENTS : Causes skin irritation  
 Causes serious eye damage  
 Very toxic to aquatic life  
 Toxic to aquatic life with long lasting effects  
 PRECAUTIONARY STATEMENTS  
 PREVENTION : Avoid release to the environment.  
 Wash thoroughly after handling.  
 Wear protective gloves/eye protection/face protection.

- RESPONSE : 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 or doctor.  
IF ON SKIN (or hair): Take off contaminated clothing. Gently wash with plenty of water and soap. If skin irritation occurs, seek medical advice/attention.  
Collect spillage.
- STORAGE :
- DISPOSAL : Passed to a licensed waste contractor.
- SAFE HANDLING ADVICE : Refer to SDS.  
This product may form gel totally or partially according to the storage conditions. In that case, please warm-up , then use as homogenous liquid.

## [3.COMPOSITION / INFORMATION ON INGREDIENTS]

SUBSTANCE OR MIXTURE : Mixture

## INGREDIENTS AND CONCENTRATION RANGE

Ingredients	Concentration Range(%)	CAS RN
Water	65	7732-18-5
Lauryldimethylamine oxide	35	1643-20-5

## [4.FIRST-AID MEASURES]

- IN CASE OF INHALATION : Remove person to fresh air and keep comfortable for breathing.
- IN CASE OF SKIN CONTACT : Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Gently wash with plenty of soap and water. If skin irritation occurs, seek medical advice/attention.
- IN CASE OF EYE CONTACT : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
- IN CASE OF INGESTION : Call a POISON CENTER or doctor if you feel unwell.

## [5.FIRE-FIGHTING MEASURES]

- EXTINGUISHING MEDIA : Powder, alcohol-resistant foam, water spray, carbon dioxide,sand
- NOT SUITABLE EXTINGUISHING MEDIA : No information available
- SPECIFIC HAZARDS : Produce irritating or toxic gases in a fire.
- SPECIFIC METHODS : Keep away from sources of ignition and use appropriate extinguishing media.Fight fire from upwind position if possible.  
Product itself is non-combustible.  
Do not flow the materials causing adverse effects into the environment with effluent fire extinguishing agents.
- PROTECTION OF FIRE FIGHTERS : Use goggles in combination with dust mask, and other protections as appropriate to situation.  
Risk of producing harmful gases such as carbon monoxide and nitrogen oxides. Avoid inhalation of smoke or gases.

## [6.ACCIDENTAL RELEASE MEASURES]

- PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE : Use goggles and protective gloves.  
Large spills : Remove person to safety.  
Ensure adequate ventilation.
- ENVIRONMENTAL PRECAUTIONS : Avoid release to the environment.
- METHODS FOR CLEANING UP : Small spills: Absorb spills with sand, inert absorbent, waste cloth or sawdust. Then wipe up remainder in waste cloth.  
Large spills: Dike spills and dispose of in safe area.

PREVENTION OF SECONDARY HAZARDS : No information available

#### [7.HANDLING AND STORAGE]

##### HANDLING

TECHNICAL MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PRECAUTIONS : Avoid contact with eyes.  
This product may form gel totally or partially according to the storage conditions. In that case, please warm-up , then use as homogenous liquid.

SAFE HANDLING ADVICE : Use an adequate ventilation.  
Wash thoroughly after handling.  
Use personal protective equipment as required.

##### STORAGE

SUITABLE STORAGE CONDITIONS : Store container tightly closed in well-ventilated place.

SAFE PACKAGING MATERIALS : No information available

#### [8.EXPOSURE CONTROLS / PERSONAL PROTECTION]

ENGINEERING MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
Use an adequate ventilation.

##### LIMIT VALUES

ACGIH (TLV) : Not established

OSHA (PEL) : Not established

##### PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION : Use as appropriate to situation.

HAND PROTECTION : Rubber gloves

EYE PROTECTION : Safety goggles

SKIN AND BODY PROTECTION : Full-body suit

HYGIENE MEASURES : No information available

#### [9.PHYSICAL AND CHEMICAL PROPERTIES]

##### APPEARANCE

PHYSICAL STATE : Liquid

COLOUR : Pale yellow clear

ODOUR : Slightly characteristic odour

pH : 7.5 (5% solution)

##### SPECIFIC TEMPERATURES / TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR

BOILING POINT : No information available

MELTING POINT : -2.5 °C ( 27.5 °F)

FLASH POINT : Not applicable

##### FLAMMABILITY OR EXPLOSIVE PROPERTIES

FLAMMABILITY OR EXPLOSIVE LIMITS : UPPER LIMIT : No information available LOWER LIMIT : No information available

VAPOUR PRESSURE : No information available

VAPOUR DENSITY : No information available

DENSITY (SPECIFIC GRAVITY) : 0.969 g/mL ( 20 °C) ( 68 °F)  
0.959 g/mL ( 40 °C) ( 104 °F)  
0.947 g/mL ( 60 °C) ( 140 °F)

##### SOLUBILITY

WATER SOLUBILITY	:	Soluble		
SOLVENT SOLUBILITY	:	No information available		
PARTITION COEFFICIENT: n- OCTANOL / WATER (log Pow)	:	No information available		
AUTO-IGNITION TEMPERATURE	:	No information available		
DECOMPOSITION TEMPERATURE	:	No information available		
ODOUR THRESHOLD	:	No information available		
EVAPORATION RATE	:	No information available		
FLAMMABILITY (SOLID,GAS)	:	No information available		
VISCOSITY	:	50 mPa.s (	20 °C) (	68 °F)
		60 mPa.s (	40 °C) (	104 °F)
		90 mPa.s (	60 °C) (	140 °F)
OTHER DATA	:	No information available		

## [10.STABILITY AND REACTIVITY]

CHEMICAL STABILITY	:	No information available
POSSIBILITY OF HAZARDOUS REACTIONS	:	Reacts with acids.  Reacts with base.
CONDITIONS TO AVOID	:	No information available
INCOMPATIBLE MATERIALS	:	No information available
HAZARDOUS DECOMPOSITION PRODUCTS	:	No information available
OTHERS	:	No information available

## [11.TOXICOLOGICAL INFORMATION]

ACUTE TOXICITY		
Oral		
INFORMATION ON PRODUCT	:	Rat, LD50 : 3625 mg/kg (male)
INFORMATION ON INGREDIENTS	:	Lauryldimethylamine oxide: Category 4; Ref.(5)
Dermal		
INFORMATION ON PRODUCT	:	No information available
INFORMATION ON INGREDIENTS	:	No information available
Inhalation		
INFORMATION ON PRODUCT	:	No information available
INFORMATION ON INGREDIENTS	:	No information available
SKIN CORROSION / IRRITATION		
INFORMATION ON PRODUCT	:	Rabbit, undiluted, 4 hours semi-occluded application test (OECD404) : Category 2
INFORMATION ON INGREDIENTS	:	Lauryldimethylamine oxide: Category 2; Ref.(5)
SERIOUS EYE DAMAGE / IRRITATION		
INFORMATION ON PRODUCT	:	Draize test, undiluted : Category 1
INFORMATION ON INGREDIENTS	:	Lauryldimethylamine oxide: Category 2A; Ref.(5)
RESPIRATORY OR SKIN SENSITIZATION		
RESPIRATORY		
INFORMATION ON PRODUCT	:	No information available
INFORMATION ON INGREDIENTS	:	No information available
SKIN		
INFORMATION ON PRODUCT	:	Guinea pig, Guinea Pig Maximization Test : Negative (Data on Dodecyldimethylamine oxide) (61)
INFORMATION ON INGREDIENTS	:	No information available

## MUTAGENICITY (GERM CELL MUTAGENICITY)

INFORMATION ON PRODUCT : Ames test (TA98, TA100) : Negative  
(Data on Lauryldimethylamine oxide)

Rec-assay (Bacillus Subtilis H17, M45) : Negative  
(Data on Lauryldimethylamine oxide)

Transformation assay (Hamster embryo cell) : Negative  
(Data on Lauryldimethylamine oxide) (61)

INFORMATION ON INGREDIENTS : No information available

## CARCINOGENICITY

INFORMATION ON PRODUCT : Rat, maximally 0.2%, fed in diet for 104 weeks and  
Mouse, maximally 0.26%, dermal application for 104 weeks  
(3 times / week) :  
No compound-related carcinogenic effects were observed.  
(Data on C12-16 (mainly C12) alkyldimethylamine oxide) (62)

INFORMATION ON INGREDIENTS : No information available

IARC : Not listed

NTP : Not listed

EU : Not listed

OSHA : Not listed

## REPRODUCTIVE TOXICITY

INFORMATION ON PRODUCT : Non-Reproductive effects. (Data on Lauryldimethylamine oxide) (61)

INFORMATION ON INGREDIENTS : No information available

## SPECIFIC TARGET ORGAN TOXICITY

## - SINGLE EXPOSURE

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : No information available

## - REPEATED EXPOSURE

INFORMATION ON PRODUCT : Rat, maximally 0.2%, fed in diet for 104 weeks and  
mouse, maximally 0.26%, dermal application for 104 weeks  
(3 times/week) :  
No differences were observed between treated and control groups.  
(Data on C12-16(mainly C12) alkyldimethylamine oxide) (62)

INFORMATION ON INGREDIENTS : No information available

## ASPIRATION HAZARD

INFORMATION ON PRODUCT : No information available

INFORMATION ON INGREDIENTS : No information available

OTHER INFORMATION : No information available

## [12.ECOLOGICAL INFORMATION]

ECOTOXICITY : Red killifish, 96h, LC50 : 47 mg/L  
Daphnia magna, 48h, EC50 : 3.9 mg/L  
Algal growth inhibition test (OECD201),  
ErC50, 0-72h : 0.14 mg/L (Desmodesmus subspicatus)  
ErC50, 0-72h : 0.75 mg/L (Pseudokirchneriella subcapitata)  
Fathead Minnow, 1 year, NOEC : 0.50 mg/L  
(Data on Lauryldimethylamine oxide) (63)  
Daphnia magna, 21 days, NOEC : 0.70 mg/L  
(Data on Lauryldimethylamine oxide) (63)

PERSISTENCE / DEGRADABILITY : Modified MITI test I (OECD301C) :  
% degradation by BOD : 84% (28 days)  
% degradation by DOC : 100% (28 days)  
(Data on Lauryldimethylamine oxide)

MOBILITY IN SOIL : No information available

BIOACCUMULATIVE POTENTIAL : No information available  
 OTHER ADVERSE EFFECTS : BOD5 : 0.021 g/g  
 COD : 30000 mg/kg (JIS K0102)

## [13.DISPOSAL CONSIDERATIONS]

Review "HANDLING AND STORAGE (Section 7)".  
 Passed to a licensed waste contractor.  
 Incinerate with little portions.  
 Risk of producing harmful gases such as carbon monoxide and nitrogen oxides.

Dispose of waste in accordance with local,state and federal regulations.

## [14.TRANSPORT INFORMATION]

Follow all regulations in your country or region

## INTERNATIONAL REGULATIONS

UN CLASS / UN NUMBER	:	Class 9 / UN3082	
IATA	:	UN Number	UN3082
		Proper Shipping Name	Environmentally Hazardous Substance, Liquid, n.o.s.(containing Lauryldimethylamine oxide)
		Class	9
		Packing Group	III
IMDG	:	UN Number	UN3082
		Proper Shipping Name	Environmentally Hazardous Substance, Liquid, n.o.s.(containing Lauryldimethylamine oxide)
		Class	9
		Packing Group	III
		Additional Information	Marine pollutant

SPECIAL PRECAUTIONS FOR USER : Review "ACCIDENTAL RELEASE MEASURES (Section 6)".  
 Review "HANDLING AND STORAGE (Section 7)".  
 Ensure containers without breakage or leakage.  
 Ensure containers tightly fixed.  
 Follow all regulations in your country or region.  
 Emergency Response Guide(ERG) Numbers : 171

## [15.REGULATORY INFORMATION]

Follow all regulations in your country or region.

INVENTORIES	:	ENCS(Japan)	Yes
		TSCA(USA)	Yes
		EINECS(EU)	Yes
		AICS(Australia)	Yes
		DSL(Canada)	Yes
		ECL(Korea)	Yes
		PICCS(Philippines)	Yes
		IECSC(China)	Yes

KAO Corporation is not able to check up the regulatory information in regard to the substances in your country or region,therefore,we request this matter would be filled by your responsibility.

## [16.OTHER INFORMATION]

REFERENCE : -Safety data sheet for chemical products - Part 1: Content and order of sections(ISO 11014-1)  
 -International Chemical Safety Cards(ICSC) (Compiler's Guide)(1994)  
 (5)Japan Surfactnt Industry Association, GHS category

- (61)Data reported by Ministry of Health and welfare
- (62)Fundamental and Applied Toxicology
- (63)Journal of the Fisheries Research Board of Canada

To the best of the manufacturer's knowledge, the information contained herein is accurate. However, neither the manufacturer, nor any of its affiliates, make any representations or warranties (expressed or implied), nor assumes any liability (including liability for any direct, incidental, consequential, or other damages) with respect to the accuracy or completeness of the information contained herein. Such information may be (without limitation) invalid if the specified material is used in combination with another, in a particular process, or under unusual conditions. Determination of suitability of any material for any given purpose is the sole responsibility of the user who assumes all risk and responsibility therefore. All materials may present unknown hazards and should be used with appropriate caution. The manufacturer cannot and does not guarantee that the hazards described herein are the only ones that exist.