SAFETY DATA SHEET (SDS)

SDS in accordance with UN GHS Purple Book **CAP – SDS – 05 - Pyrolysis Gasoline (Rev.01)**

This SDS is effective as from 25 Jan 2019 and supersedes previous document published | Validity date: 25 Jan 2024

SECTION-1. IDENTIFICATION

Product/Material	:	**Pyrolysis Gasoline (Py gas)**
Recommended Use	:	Raw material use in industrial applications for chemical synthesis etc.
Manufacturer	:	**PT. CHANDRA ASRI PETROCHEMICAL Tbk (CAP)**
Head Office	:	Wisma Barito Pacific, Tower A, 7th floor, Jl. Letjend S. Parman, Kav.62-63. Jakarta 11410, Indonesia.
Plant	:	Jl Raya Anyer Km.123, Ciwandan, Cilegon 42447, Indonesia. Ph: 62-254-601501
Emergency contact (24 hrs)	:	GROUPSHEDIVISION@capcx.com, Phone: 62-254-601829, 601501 Ext 1232
Additional Information	:	GROUPRND@capcx.com, Phone: +62-254-601501 Ext 1309, 1616

SECTION-2. HAZARD IDENTIFICATION

GHS Classification	:	Flammable liquid: Category 2 | Acute aquatic toxicant: Category 2 | Chronic aquatic toxicant: Category 2 | Aspiration toxicant: Category 1 | Carcinogen: Category 1A | Target organ toxicant (repeated exposure): Category 1 | Eye irritation: Category 2A | Germ Cell Mutagen: Category 1B | Reproductive toxicant: Category 1B | Skin irritation: Category 2 | Target organ toxicant (central nervous system): Category 3 | Target organ toxicant: Category 3 | Acute oral toxicant: Category 4.
Hazard Statements	:	Highly flammable liquid and vapor | May be fatal if swallowed and enters airways | May be harmful in contact with skin | Causes skin irritation | May cause respiratory irritation, and drowsiness or dizziness | May cause genetic defects | May cause cancer | Suspected of damaging fertility or the unborn child | Causes damage to organs (Blood, Eyes, Auditory organs, Nervous system) through prolonged or repeated exposure | May cause damage to organs (Auditory organs) through prolonged or repeated exposure if inhaled | Toxic to aquatic life with long lasting effects.
Pictogram (Hazard Symbols)	:	
Signal Word	:	DANGER
NFPA Hazard Rating	:	Health = 2 Flammability = 3 Reactivity = 0
Target Organ	:	Causes damage to organs through prolonged or repeated exposure.
Physical Hazards	:	Extremely flammable liquid and vapor.
Environmental Hazards	:	Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Health Hazards	:	May be fatal if swallowed and enters airways. Harmful if swallowed. May cause cancer. May cause genetic defects. May damage fertility or the unborn child. Causes serious eye irritation. Causes skin irritation. May cause drowsiness or dizziness. May cause respiratory irritation.
Precautionary Hazard	:	Obtain special instructions before use.

Prevention	:	Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces – No smoking.
Precautionary Hazard - Response	:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Take off contaminated clothing and wash before reuse. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Wash with plenty of soap and water. Rinse mouth. Do NOT induce vomiting. IF exposed or concerned: Get medical advice/attention. Specific treatment (see Notes to Physician on this label). In case of fire: Use manufacturer/supplier or the competent authority to specify appropriate media for extinction. Collect spillage.
Precautionary Hazard-Storage	:	Store in a well-ventilated place. Keep cool. Store locked up.
Precautionary Hazard-Disposal	:	Dispose of contents/container in accordance with applicable local/ regional/ national/ international regulations.

SECTION-3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Identity : Pyrolysis Gasoline CAS No: 68606-10-0

Common Name : Py Gas

Component		**CAS No**	**Concentration (ppm wt.)**
C5's and lighter	:	Mixture	< 1.5 % wt
Contains: Styrene	:	100-42-5	<1 % wt
Total BTX	:	Mixture	> 60 % weight
Non Aromatic (C6 & heavier)	:	Mixture	< 40% weight

SECTION-4. FIRST-AID MEASURES

Skin contact	:	To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse. Get medical attention if any symptoms develop.
Inhalation	:	Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.
Eyes contact	:	Flush eyes with running water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get immediate medical attention.
Ingestion	:	If swallowed, do not induce vomiting. Give the person a glass of water or milk to drink and get immediate medical attention. Never give anything by mouth to an unconscious person.
Note to Physician	:	Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

SECTION-5. FIRE-FIGHTING MEASURES

Flammable Properties : Clear fire area of all non-emergency personnel.

Extinguishing Media

Suitable Extinguishing Media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media : Do not use water jet.

Specific Hazards in Case of Fire

Hazardous Combustion Products : The vapor is heavier than air, spreads along the ground and distant ignition is

possible. Will float and can be reignited on surface water. Carbon monoxide may be evolved in incomplete combustion occurs.

Special Protective Equipment and Precaution for Fire Fighter

Special Protective Equipment : Wear full protective clothing and self-contained breathing apparatus

Precautions for Fire- Fighter : Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

SECTION-6. ACCIDENTAL RELEASE MEASURES

Protective Measures : Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator. Wear appropriate personal protective equipment when cleaning up spills.

Spill Management : Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible sorbent materials or pumping. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

SECTION-7. HANDLING AND STORAGE

Precautions for Safe Handling : This material presents a fire hazard. Liquid quickly evaporates and forms vapor (fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 15°F. Do not breathe vapor or fumes.

Unusual Handling Hazards : Inspect tank vents periodically. Styrene vapors may polymerize in vents or flame arrestors of storage tanks. Check temperature, inhibitor and polymer content at least once a week during warm weather. Increase monitoring frequency if stored at greater than 70 F for longer than 30 days. Minimize storage time

General Handling Information : Avoid work practices that may release volatile components in the atmosphere. Local air pollution regulations should be consulted to determine if the release of volatile components is regulated or restricted in the area in which this material is used. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Static Hazard : Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations, which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids, National Fire Protection Association (NFPA 77), Recommended Practice on Static Electricity' (liquids, powders and dusts), and/or the American Petroleum Institute

(API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents' (liquids).

General Storage Information : Container is not designed to contain pressure. Does not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum re-conditioner, or disposed of properly. DO NOT USE OR STORE near heat, sparks or open flames. USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

SECTION-8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Considerations:

Consider the potential hazards of this material, applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited timer or under certain circumstances.

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face Protection: Wear eye protection such as safety glasses, chemical goggles, or face-shields if engineering controls or work practices are not adequate to prevent eye contact.

Skin Protection: Wear impervious protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Users should determine acceptable performance characteristics of protective clothing. Consider physical requirements and other substances present when selecting protective clothing. Suggested materials for protective gloves include: Silver Shield, or 4H (PE/EVAL), or Teflon, or Viton.

Respiratory Protection: If exposure is anticipated to be greater than applicable exposure limits, wear a NIOSH approved respirator that provides adequate protection from measured concentrations of this material, such as: Supplied-Air Respirator, or Air-Purifying Respirator for Organic Vapors, or Self-contained breathing apparatus (SCBA) for use in environments with unknown concentrations or emergency situations. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component Name	Limit	TWA	STEL	Ceiling/Peak	Notation
Contains: Benzene	ACGIH	0.5 ppm	2.5 ppm	NA	Skin (BEI) A1
Contains: Benzene	CPCHEM	0.5 ppm	2.5 ppm	NA	Skin
Contains: Benzene	German MAK	1 ppm	NA	3	Skin, 1
Contains: Benzene	OSHA PEL	1 ppm	5 ppm	NA	NA
Contains: Ethyl Benzene	ACGIH	100 ppm	125 ppm	NA	BEI A3
Contains: Ethyl Benzene	German MAK	440 mg/m^3	NA	1	Skin
Contains: Ethyl Benzene	OSHA PEL	100 ppm	NA	NA	NA
Contains: Hexane	ACGIH	50 ppm	NA	NA	Skin
Contains: Hexane	German MAK	180 mg/m^3	NA	4	NA
Contains: Hexane	OSHA PEL	500 ppm	NA	NA	NA

Contains: Styrene	ACGIH	20 ppm	40 ppm	NA	BEI
Contains: Styrene	German MAK	89 mg/m^3	NA	4	NA
Contains: Styrene	OSHA PEL	100 ppm	NA	200 ppm	NA
Contains: Toluene	ACGIH	10 ppm	NA	NA	Skin (BEI) A4
Contains: Toluene	German MAK	50ppm	NA	4	Skin, C
Contains: Toluene	OSHA PEL	200 ppm	NA	300 ppm	NA
Contains: Xylene	ACGIH	100 ppm	150 ppm	NA	BEI A3

SECTION-9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State and Appearance	Amber liquid with olefinic odor
Color	Pale yellow
Odor	Aromatic
Odor Threshold	NA
pH	Not Applicable
Boiling Point/Boiling Range	70^{O}C to 160^{O}C (158^{O}F to 320^{O}F) IBP-EP
Auto-ignition	400-500^{O}C (752-932^{O}F)
Lower Flammable (explosion) Limit	1.3 %
Upper Flammable (explosion) Limit	7.5 %

Solubility (water)	Soluble in HC solvents; insoluble in water
Evaporation Rate	NA
Vapor Pressure	3.5 psia at 38^{O}C (100^{O}F)
Evaporation Rate	NA
Viscosity	0.9 cSt at 40^{O}C (104^{O}F)
Partition Coefficient Octanol/Water Log Pow)	NA
Relative Vapor Density (air=1)	2.8
Additional Physical and Chemical properties	No additional information available
Melting Point Flash Point	- 95^{O}C (-139^{O}F) - 7^{O}C (19.4^{O}F)

SECTION-10. STABILITY AND REACTIVITY

Chemical Stability : Unstable at elevated temperatures. Stable when inhibited with greater than 10 ppm TBC. This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility With Other Materials : May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc. Corrosive to copper and copper bearing alloys

Conditions to Avoid : Avoid heat, sparks, open flames and other ignition sources. Prevent vapor accumulation.

Substances to Avoid : Strong oxidizing agents.

Hazardous Decomposition Products : No Data

SECTION-11. TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS:

Acute Oral Toxicity : LD50 Oral: > 5,000 mg/kg Species: rat

Acute Dermal Toxicity : LD50 Dermal: > 2,000 mg/kg, Information refers to the main ingredient.

Acute Inhalation Toxicity : LC50: > 12400 ppm, Exposure time: 4 Hrs, Species: rat

Eye irritation : This material is irritating to the eyes

Skin Irritation : This material is irritating to the skin

Respiratory Tract Irritation : This material maybe irritating to the respiratory tract.

Sensitization : Dermal/not expected to be a sensitizer

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains BENZENE:

Repeated Dose Toxicity: 13 wks/inhalation/rat/Doses: 0, 10, 30, or 300 ppm/6h/d; 5d/wk/NOAEL=10 ppm, LOAEL=30 ppm (increase in mean thyroid weight); 103 wks/gavage/rat/Doses: 0, 25, 50, or 100 mg/kg for females, 0, 50, 100, or 200 mg/kg

for males; 5d/wk/NOAEL<25-50 mg/kg, LAOEL=25–50 mg/kg (decreased white blood cell count); 103 wks/gavage/mouse/Doses: 0, 25, 50, or 100 mg/kg/NOAEL<25 mg/kg, LOAEL=25 mg/kg (decrease white blood cell counts)
Reproductive And Developmental Toxicity: GD 6-15/inhalation/rat/Doses: 0, 10, 50, or 500ppm/daily, 7 h/d/NOAEL teratogenicity=50ppm, LOAEL=500 ppm (skeletal variants and evidence of lacking ossification in the rib cage, extremities, skull, pelvic girdle and vertebral column); GD 6-15/inhalation/mouse/Doses: 0, 5, 10, or 20 ppm/daily, 6 hrs/d/NOAEL Teratogenecity=20 ppm; GD 6-15/gavage/mouse/Doses: 0, 264, 440, or 880mg/kg/daily/NOAEL maternal tox. = 880 mg/kg, NOAEL teratogenicity=880 mg/kg Genetic Toxicity: Ames test-negative, Cytogenetic assay- positive; Mouse Lymphoma assay–positive; Sister Chromatid Exchange in CHO cells-negative; Micronucleus assay–positive.
Carcinogenicity: 52 wks/gavage/rat/Doses: 0, 50, or 250mg/kg/daily, 4-5 d/wk/zymbal gland carcinomas, mammary gland carcinomas and leukemia; 103 wks/gavage/rat/Doses: 0, 50, 100, or 200mg/kg for males, 0, 25, 50 or 100 mg/kg for females/5d/wk/LOAEL=25 mg/kg (zymbal gland carcinomas, squamous cell papillomas)
Other: Benzene is classified as a Group 1 carcinogen by IARC based on sufficient evidence of carcinogenicity in animals and sufficient evidence of carcinogenicity in humans.

This product contains STYRENE:
Repeated Dose Toxicity: 13 weeks/inhalation/rat/Doses: 0 or 0.565 mg/L/7h/d, 5d/wk/NOAEL=0.565mg/L (hepatotoxicity), 28 days/gavage/rat/doses: 0, 100 – 2000 mg/kg/5d/w/NOAEL=100 mg/kg/ LOAEL=500 mg/kg (irritation to esophagus and stomach)
Reproductive and Developmental Toxicity; GD 6-15/inhalation/rat/Doses: 0, 300 or 600ppm/7h/d/NOAEL maternal tox.< 300ppm/NOAEL teratogenicity>300ppm; GD 6-15/gavage/rat/Doses: 0, 90, or 150mg/kg/twice/day/NOAEL maternal tox. < 180mg/kg, NOAEL teratogenicity>300 mg/kg Target Organs: 13 weeks/inhalation/rat/Doses: 0, 50, 200, or 800ppm/6h/d, 7d/w/NOAEL=200ppm, LOAEL=800ppm (auditory dysfunction at mid and high frequencies) Genetic Toxicity: Ames test-negative, Cytogenetic assay-positive; E. coli reverse mutation assay-negative; Mouse Lymphoma assay–negative; Sister Chromatid Exchange assay-positive; Mammalian cell gene mutation assay–negative; Micronucleus test–positive
Carcinogenicity: 2 years/in drinking water/rat/Doses: 0, 125 or 250 ppm/daily/no evidence of carcinogenicity

This product contains TOLUENE:
Repeated Dose Toxicity: 15 wks/inhalation/rat/Doses: 0, 100, 625, 1250, 2500 or 3000 ppm/6h/d, 5d/wk/NOAEL=625 ppm (changes in liver and kidney weights, decreased leukocyte count), 14 wks/inhalation/mice/Doses: 0, 100, 625, 1250, 2500 or 3000 ppm/6h/d, 5d/wk/NOAEL = 100 ppm (increased organ weights, decreased body weights)
Reproductive And Developmental Toxicity: 2-generation/95 days/inhalation/rats/Doses; 0, 100, 500 or 2000 ppm/ NOAEL=2000 ppm (max dose)–no effect on fertility, repro or lactation parameters; NOAEL for developmental effects=400 – 750 ppm (skeletal malformations) Genetic Toxicity: Ames test-negative; Sister Chromatid Exchange assay-negative; Mouse lymphoma assay–negative; Cytogenetic assay in vivo/in vitro–negative; Micronucleus test–negative.
Carcinogenicity: 2 years/inhalation/rat & mouse/Doses: 0, 600 or 1200 ppm/6.5h/day, 5 d/week/no evidence of carcinogenicity.

This product contains N-HEXANE:
Repeated Dose Toxicity: 13 wks/inhalation/rat/Doses: 0, 3000, 6500, or 10,000 ppm/6h/d, 5d/wk/LOAEL=6500 ppm (depression of body weight gain, lower brain weight and axonopathy in male rats)
Reproductive And Developmental Toxicity: 61days/inhalation/rats/Doses; 0, 1000 ppm/permanent testicular damage characterized by loss of germ-cell line Genetic Toxicity: Ames test-negative; Sister Chromatid Exchange assay-negative; Mouse lymphoma assay–positive
Carcinogenicity: 24 wks/inhalation/rat/Doses: 0, 3000 ppm/8h/day, 6days/wk/rats developed papillary proliferation of non-ciliated bronchiolar cells.

This product contains ETHYLBENZENE:
BIRTH DEFECTS AND REPRODUCTION: Not expected to be a teratogen or reproductive toxicant based on rats and rabbits studies. NOAEL is 500 ppm in a rat 2-generation reproductive neurotoxicity study.
IMMUNOTOXICITY: NOAEL is 500 ppm in a rat splenic antibody formation study. There is no evidence that ethyl benzene is immunotoxic.

HEARING: 200 ppm or higher concentration of vapor exposures was associated with structural and electrophysiological alterations in the auditory system of laboratory animals.

Genetic toxicity: Negative in the bacterial mutation test, Chinese Hamster Ovary (CHO) cell in vitro assay, sister chromatid exchange assay and an unscheduled DNA synthesis assay. Conflicting results for the mouse lymphoma cell assay. Increased micronuclei were reported in an in vitro Syrian hamster embryo cell assay; however, two in vivo micronuclei studies in mice were negative. In Syrian hamster embryo cells in vitro, cell transformation was observed at 7 days of incubation but not at 24 hours.

Carcinogenicity: 103 wks/inhalation/rats and mice/6h/d for 5d/wk/Doses: 75, 250, or 750 ppm/in rats exposed to 750 ppm, the incidence of kidney tubule hyperplasia and tumors was increased. In mice, the incidences of lung tumors in males and liver tumors in females exposed to 750 ppm increased as compared to control mice but were within the range of incidences observed historically in control mice. Ethyl benzene is classified in group 2B (possibly carcinogenic to humans) by IARC.

This product contains MIXED XYLENES:

Repeated Dose Toxicity: 13 wks/gavage/rat/Doses: 0, 62.5, 125, 250, 500, or 1000mg/kg/daily, 5d/w/NOAEL = 1000mg/kg (for systemic effects including CNS effects) and NOAEL = 500mg/kg (reduced weight gain); 13 wks/inhalation/rat/Doses: 0, 180, 460, or 810ppm/6h/d, 5d/w/NOAEL > 810ppm.

Reproductive and Developmental Toxicity: GD 7-16/inhalation/rat/Doses: 0, 805, or 1610ppm/6h/d/NOAEL = 1610ppm; GD 6-15/oral (gavage)/mouse/Doses: 0, 780, 1960, or 2619mg/kg/3 times/day/LOAEL = 1960mg/kg (maternal toxicity and increased incidences of resorptions and cleft palate),

Other test substance – paraxylene Target Organs: 13 wks/inhalation/rat/Doses: 0, 450, 900 or 1800ppm/6h/d, 6d/wk/LOAEL = 900ppm (moderate to severe ototoxicity).

Other test substance – paraxylene Genetic toxicity: Ames-negative; Mouse lymphoma assay-negative; Micronucleus assay–negative Carcinogenicity: 103 wes/gavage/rat/ 0, 250, 500 mg/kg/5d/w/NOAEL=250 mg/kg/LOAEL=500mg/kg (decreased body weight and decreased survival); 103 wks/gavage/mouse/0, 500, 100mg/kg/5d/w/NOAEL=1000mg/kg

SECTION-12. ECOLOGICAL INFORMATION

Eco toxicity	:	This material is expected to be toxic to aquatic organisms. Contains: Benzene-8 days/EC50/green algae (Selenastrum capricornutum)/41 mg/l Contains: Benzene-96 hrs/LC50/striped bass (Marone saxatilis)/5.3 mg/l Contains: Benzene-96 hrs/LC50/rainbow trout (Oncorhynchus mykiss)/5.3-9.1mg/l Contains: Benzene-24 hrs/EC50/water flea (Daphnia magna)/240 mg/l
Environmental Fate	:	This material is volatile and is expected to partition to air. This material is expected to biodegrade under certain environmental conditions. More than 99% of xylene released to the environment is volatilized to the atmosphere. Xylene is readily biodegradable; the rate of biodegradation varies with the source of microbial culture and whether acclimation to the substrate has been accomplished by pre-exposure to xylene. Toluene is volatile and when released into water will be volatilized to the atmosphere where it is degraded with a half-life of 10 to 104 hours. Toluene is readily biodegradable in tests using sewage or sludge inocula. The biodegradation half-life for toluene in surface waters and soils is expected to range from 4 to 22 days. Toluene that does not evaporate following release to soil is expected to be highly mobile and may leach to groundwater. In groundwater, toluene has been reported to be degraded in 7 to 28 days. N-Hexane has low water solubility and is highly volatile. Data on the toxicity of n-Hexane to aquatic organisms are few, variable, conducted under inappropriate conditions and inadequate to make an assessment of the environmental risk

SECTION-13. DISPOSAL CONSIDERATIONS

Waste Disposal

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a

hazardous waste as defined by US EPA under RCRA (40 CFR 261) or local regulations. Measurement of certain physical properties and analysis for regulated component may be necessary to make a correct determination. If this material is classified as a hazardous waste, Kementrian Lingkungan Hidup Republic Indonesia requires disposal at a licensed hazardous waste disposal.

Product: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Sent to a licensed waste management company. Contaminated packaging: Empty remaining contents. Dispose as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION-14. TRANSPORT INFORMATION

UN Number	1268	
UN Proper Shipping name	Py Gas	
Transport Hazard Class	Road (ADR)/Rail (RID)/Water (ADNR)	UN 1268, PETROLEUM DISTILLATES, N.O.S., 3, I, ADR
	IMDG class (Marine Transport)	UN 1268, PETROLEUM DISTILLATES, N.O.S., 3, I, (>-11°C), RQ (Benzene, Ethylbenzene
	ICAO/IATA class (Air Transport)	UN 1268, PETROLEUM DISTILLATES, N.O.S., 3, I
Packing Group		
Marine Pollutant	Yes	

SECTION-15. REGULATORY INFORMATION

Regulatory Information : KEPMENAKER 187/Men/1999 Pengendalian Bahan Kimia Berbahaya

PERMENLH RI No. 3 Year 2008: Tata Cara Pemberian Simbol dan Label Bahan Berbahaya dan Beracun.

PERMENPERIN RI No. 87/M-IND/PER/9/2009: Sistem Harmonisasi Global Klasifikasi dan Label pada Bahan kimia.

SECTION-16. OTHER INFORMATION

Training Advice : Personnel handling the product need to be demonstrably with its hazardous properties, with health and environmental protection principles related to the product and first aid principles

Recommended Uses : THE PRODUCT IS RESTRICTED TO PROFESSIONAL USAGE. Ensure all national/local regulations are observed. Ensure operators understand the flammability hazard. The hazard of asphyxiation is often overlooked and must be stressed during operator training. This Safety Data Sheet has been established in accordance with the applicable European. Directives and applies to all countries that have translated the Directives in their national laws. Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted. Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose.

Abbreviations that may have been used in this document:

NOAEL	:	No Observed Adverse Effect Level
LOAEL	:	Lower Observed Adverse Effect Level
ACGIH	:	American Conference of Governmental Industrial Hygienist
ADNR	:	European Agreement concerning the Int'l Carriage of Dangerous Goods by inland Waterways
ADR	:	European Agreement concerning the Int'l Carriage of Dangerous Goods by Road
CAS	:	Chemical Abstract Service
EPA	:	Environmental Protection Agency
EU	:	European Union
IATA	:	International Air Transport Association
ICAO	:	International Civil Aviation Organization
IMDG	:	International Maritime Dangerous Goods
IMO	:	International Maritime Organization
LC50	:	Lethal Concentration, concentration of chemical which kills 50% of a sample population
LD50	:	Lethal Dose, dose of a chemical which kills 50% of a sample population
NFPA	:	National Fire Protection Association
NTP	:	National Toxicology Program
PSHA	:	Occupational Safety and Health Administration
RID	:	International Rule for Transportation of Dangerous Substance by Railway
TLV	:	Threshold Limit Value
TWA	:	Time Weighted Averages

This Safety Data Sheet (SDS) contains the following historical revisions:

Rev No	Issued Date	Revision Change	Description
00	09 Jan 2015	Original Document	
01	25 Jan 2019	SECTION-02	NFPA was modified

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