SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier : Premium

Other means of identification : Gasoline88

Recommended use of the chemical and restrictions on use : Unleaded fuel designed for gasoline-fueled motor vehicles with compression ratio < 9.0.
Can not be used for diesel engine motor vehicles.

Manufacturer : PT Pertamina (Persero)
Jl. Medan Merdeka Timur No. 1A
Jakarta Pusat ZIP Code 10110
Phone: 1500-000
Email: pcc@pertamina.com

Emergency phone number : 1500-000

2. HAZARD IDENTIFICATION

Classification : Flammable liquid, category 1
Skin corrosion/irritation, category 2
Germ cell mutagenicity, category 1B
Carcinogenicity, category 1B
Reproductive toxicity, category 2
Specific target organ toxicity (STOT)-single exposure, category 3 (narcotic effect)
Aspiration hazards, category 1
Hazardous to the aquatic environment (acute hazard), category 2
Hazardous to the aquatic environment (long-term hazard), category 2

Signal word : Danger

Hazard statement : <u>Physical Hazard</u>

H224 – Extremely flammable liquid and vapor

<u>Health Hazard</u>

H304 – May be fatal if swallowed and enters airways
H315 – Causes skin irritation
H336 – May cause drowsiness or dizziness
H340 – May cause genetic defects
H350 – May cause cancer
H361 – Suspected of damaging the unborn child

<u>Environmental Hazard</u>

H401 – Toxic to aquatic life
H411 – Toxic to aquatic life with long lasting effects

Precautionary statement : <u>Prevention</u>

P201 – Obtain special instructions before use
P202 – Do not handle until all safety precautions have been read and understood
P210 –Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

2. HAZARD IDENTIFICATION

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/vapor/spray.

P271 –Use only outdoors or in a well-ventilated area.

P273 –Avoid release to the environment.

P280 –Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P310 –IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302 + P352 –IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 –IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P308 + P313 –IF exposed or concerned: Get medical advice/attention.

P331 –Do NOT induce vomiting.

P332 + P313 –If skin irritation occurs: Get medical advice/attention.

P362 + P364 –Take off contaminated clothing and wash it before reuse.

P370 + P378 –In case of fire: Use sand, dry chemical, or foam for extinction.

P391 –Collect spillage.

Storage

P403 + P233 + P235 –Store in a well-ventilated place. Keep container tightly closed. Keep cool.

P405 –Store locked up.

Disposal

P501 -Dispose of contents/container according to valid disposal regulations

Pictogram :

Other hazards which do not result in classification : Liquid evaporates quickly and can ignite leading to a flash fire or an explosion in a confined space. This material is a static accumulator. Even with proper grounding and bonding, this sufficient charge is allowed to accumulate,

2. HAZARD IDENTIFICATION

electrostatic discharge and ignition of flammable air-vapor mixtures can occur. Slightly irritating to respiratory system. This product contains benzene which may cause leukaemia (AML-acute myolegenous leukaemia). May cause MDS (Myelodysplastic Syndrome).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration (% w/w)
Gasoline, low boiling point naphtha	86290-81-5	≥ 99
Benzene	71-43-2	< 1

4. FIRST AID MEASURES

Necessary description

- **In case of eye contact** : Flush eye with plenty of water. Remove contact lenses. If irritation occurs, refer to a doctor/physician.
- **In case of skin contact** : Wash the contaminated skin with water and soap. Remove clothes. Wash the contaminated clothing before reuse.Get medical advice immediately if further irritation occurs.
- **If inhaled** : Keep away from exposure. Move victim to fresh air and keep at rest incomfortable position forbreathing. Get medical advice immediately if further irritation and headache persist.
- **If swallowed** : If victim swallows more than 0.5 liter, give 1-2 glass of water immediately. If emergency condition occurs, seek for medical advice.
  Do not give anything through mouth that can induce nausea or vomiting.
  Swallowed substance may be absorbed to lungs and can increase risk of chemical pneumonitis, in this case, appropriate treatment is needed.

Most important symptoms/effects : Skin irritation signs and symptoms may include a burning, sensation, redness, or swelling. Eye irritation signs and symptoms may include a burning, sensation and a temporary eye irritation. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, short breath, and/or fever, the onset of respiratory symptoms may be delayed for several hours after exposure. Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache,nausea, and loss of coordination. Continued inhalation may result in unconsciousness and death. Auditory system effects may include temporary hearing loss and/or ringing in the ears.

4. FIRST AID MEASURES

Indication that need immediate medical attention and special treatment : Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO_2), dry chemical powder andfoam

Unsuitable extinguishing media : High pressure water (water jet)

Specific hazards

- **Other explosion and fire hazards** : It occurs at unprotected storage tank around the fire location

Flash point°C : -43

Flammability value : LEL 1.4%, UEL 7.6%

Hazardous chemical composition : Carbon monoxide (CO)

Special protective actions for fire fighters

a. Carbon dioxide (CO_2) : Spray to the origin of fire in the same direction with the wind.

b. Dry chemical powder : Spray to the origin of fire in the same direction with the wind.

c. Foam : If the fire is in a container, spray the foam to inner wall of the container (not to the ignited liquid) in the same direction with the wind. If the fire occurs because spill, spray to the origin of fire in the same direction with wind until all the fire covered. Do not dispose the spill to the clean water source (drinking water).

Special protective equipment for fire-fighter : If fire occurs in limited/indoor/closed area, fire fighter operator must wear Self-Contained Breathing Apparatus(SCBA).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures : Keep away from fire source. Avoid direct contact with skin, eye, and clothes. Evacuate personnel to the safe place. Beware of vapor which accumulates to form explosive concentration. Vapor can accumulate in low areas. Use personal protective equipment. Ensure adequate ventilation.

Environmental precautions : Prevent oil spill goes into drainage, sewage system, and soil.

Procedures : Report spill according to the valid system and procedures. If spill can go into drainage or streams, do immediate

6. ACCIDENTAL RELEASE MEASURES

report to the authority.

Methods and materials for containment and cleaning up : Do oil spill control with oil spill kit (absorbents: sawdust, sorbent pad/pillow, etc, and other fire retardant material). Clean and dispose cleaned material in the right waste disposal according to valid regulations. Prevent further spill and leakage if possible and safe to do.

7. HANDLING AND STORAGE

Precautions for safe handling : Do not suck Premium with mouth directly. This product can not be used as solvent or abstergent.
Avoid exposure and obtain specific instruction before using the product.
Equipment used must be explosion proof and do not spray.
If it is handled in open air area, avoid the occurence of fire sparks.
Portable container must pass feasibility test.
When filling process is done, container must be placed on the soil surface while the cover must be still patched to the container in order to avoid static electricity.
Do not smoke, eat, and drink in handling area.
Avoid skin and eye contact with product.
Wear personal protective equipment, see in section 8.

Conditions for safe storage (including any incompatibility) : Storage must be grounded and bonded. It also must be completed with self-closing valves, pressure vacuum bungs andflame trap.
Keep away from flammable goods, fire, electrical, or other heat sources.
Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Opened container must be re-sealed and keep in standing position to prevent any leakage.
Be aware with precautions label.
Do not smoke.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

- **Exposure limit** : TWA 300 ppm
  STEL 500 ppm
- **Biological exposure indicator** : Not available

Appropriate engineering control

- **Ventilation** : If Premiumis used in closed container, ventilation is needed. Ventilation and tools must be explosionproof.

Individual protection

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- **Eye and face protection** : Wear eye protection (chemical type goggles).
- **Skin protection** : Wear protective gloves (leather or PVC).
- **Respiratory protection** : Wear respiratory protection with appropriate filter when there is accumulated vapor and excessive concentration which passes the TLV.
- **Hygiene practices** : Wash hand thoroughly after handling.
  Do not eat or drink when using this product.
  Do not smoke while using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES AND SAFETY CHARACTERISTICS

Characteristic		Result
Organoleptic (physical appearance, color, etc.)	:	Liquid, red, clear and bright
Odor	:	Hydrocarbon
Odor Threshold	:	Not available
pH	:	Not available
Melting point/freezing point	:	Not applicable
Initial boiling point/boiling range	:	Not available
Flammability	:	Flammable
Flash point	:	-43°C
Evaporation rate	:	Not available
Flammability limit	:	LEL 1.4% - UEL 7.6%
Vapor pressure	:	Max. 62 kPa
Vapor density	:	Not available
Relative density	:	Not available
Solubility		
• **Water solubility**	:	Not soluble
• **Other solubility**	:	Not available
Partition coefficient n-octanol/water (log value)	:	Not available
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
Viscosity	:	Not available

10. STABILITY AND REACTIVITY

- **Reactivity** : Hazardous substances polimerisation does not occur.
- **Chemical stability** : Stable.
- **Posibility of hazardous reaction** : No hazardous reaction in normal condition.
- **Condition to avoid** : Heat, fire sparks, flame, or condition that induce static electricity.
- **Incompatible materials** : Halogen, strong acid, strong base dan strong oxidizer.
- **Hazardous decomposition product** : Carbon monoxide (CO).

11. TOXICOLOGICAL INFORMATION

Comprehensive toxicological/health information

- **Acute toxicity** : Vapor or mist may induce respiratory irritation
- **Skin corrosion/ irritation** : No data available. Suspected that it may cause mild irritation according tocompound or product which has similar structure or composition.
- **Serious eye damage/irritation** : No data available. Suspected thatit may not cause serious damage but cause mild irritation according tocompound or product which has similar structure or composition.
- **Respiratory or skin sensitization** : No data available. Suspected thatit may not cause respiratory/skin sensitization according tocompound or product which has similar structure or composition.
- **Germ cell mutagenicity** : No data available. Suspected that it is not mutagenaccording tocompound or product which has similar structure or composition.
- **Carcinogenicity** : No data available. Suspected that it is not carcinogen according tocompound or product which has similar structure or composition.
- **Reproductive toxicity** : No data available. Suspected that it is not reproductive toxicantaccording tocompound or product which has similar structure or composition.
- **STOT-single exposure** : No data available. Suspected that it may cause narcotic effect according tocompound or product which has similar structure or composition.
- **STOT-repeated exposure** : No data available. Suspected that it is not toxic to specific organ after repeated exposure according tocompound or product which has similar structure or composition.
- **Aspiration hazards** : No data available but this product may cause death if swallowed or enters the airway according tocompound or product which has similar structure or composition.

Likely routes exposure information : Inhaled, swallowed, skin contact, and eye contact.

Symptoms related to the physical, chemical, and toxicological characteristics : Skin irritation signs and symptoms may include a burning, sensation, redness, or swelling. Eye irritation signs and symptoms may include a burning, sensation and a temporary redness of the eye. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever, the onset of respiratory symptoms may be delayed for several hours after exposure.

Delayed and immediate effects, and also chronic effects both in short or long : May cause liver and kidney tumor in testing animal with concentration>8000 ppm.
Breathing of high vapor concentrations may cause central

11. TOXICOLOGICAL INFORMATION

term exposure		nervous system (CNS) depression resulting in dizziness, light-headedness, headache,nausea, and loss of coordination. Continued inhalation may result in unconsciousness and death. Auditory system effects may include temporary hearing loss and/or ringing in the ears.
Numerical measure of toxicity	:	No data available. Further testing has not been done.
Interative effects	:	No data available. Further testing has not been done.
Where specific chemical data are not available	:	No data available. Further testing has not been done.
Mixture	:	No data available. Further testing has not been done.
Mixture vs. Ingredient information	:	No data available. Further testing has not been done.
Other in formation	:	Laboratorytesting by American Petroleum Institute (API) using animal showd that high gasoline vapor and long term exposure may cause kidney damage and cance, also liver cancer. Effects on reproductive system is not proven. Low repeated benzene exposure may cause blood problem in human like anaemia and leukaemia. Long term hexane exposuremay cause nervous system damage like extremities numbness and paralyze. For more detail information, see section 2 and 3.

12. ECOLOGICAL INFORMATION

Ecotoxicity	:	Soil seepage may cause soil water contamination or aquifer.
Persistence and degradability	:	No data available. Further testing has not been done.
Bioaccumulation potential	:	No data available. Detailed toxic effects is related to concentration nominal value. Further testing has not been done.
Mobility in soil	:	No data available. Further testing has not been done.
Other adverse effects	:	No data available. Further testing has not been done.

13. DISPOSAL CONSIDERATION

Disposal methods	:	May be burned with incinerator according to the valid regulation.

**Law information: this product sludge waste is classified as hazardous waste (except it is not proven after TCLP (Toxicity Characteristic Leaching Procedure) testing), so that the disposal must follow valid provision.*

14. TRANSPORT INFORMATION

USA DOT

UN Number	:	UN 1203

14. TRANSPORT INFORMATION

UN proper shipping name : Gasoline
Transport hazard class(es) : 3
Packing group (if available) : PG II
Environmental hazard : -
Special precautions for user (UN Model Regulation) : -

RID / ADR

UN Number : UN 1203
UN proper shipping name : Gasoline
Transport hazard class(es) : 3
Packing group (if available) : -
Environmental hazard : -
Special precautions for user : -

IMO

UN Number : UN 1203
UN proper shipping name : Gasoline
Transport hazard class(es) : 3
Packing group (if available) : PG 11
Environmental hazard : -
Special precautions for user : -

ICAO / IATA

UN Number : UN 1203
UN proper shipping name : Gasoline
Transport hazard class(es) : 3
Packing group (if available) : PG II
Environmental hazard : -
Special precautions for user : -

15. REGULATORY INFORMATION

Safety, health, and environmental regulation (specific for the product in question) :

- Peraturan Menteri Perindustrian Nomor 23/M-IND/PER/4/2013 tentang Perubahan Atas Peraturan Menteri Perindustrian Nomor 87/M-IND/PER/9/2009 Tentang Sistem Harmonisasi Global Klasifikasi dan Label pada Bahan Kimia
- Peraturan Direktur Jenderal Basis Industri Manufaktur Nomor 04/BIM/PER/1/2014 tentang Petunjuk Teknis dan Petunjuk Pengawasan Pelaksanaan Sistem Harmonisasi Global dan Klasifikasi dan Label
- Peraturan Pemerintah Republik Indonesia Nomor 74 Tahun 2001 Tentang Pengelolaan Bahan Berbahaya dan Beracun
- Keputusan Menteri Tenaga Kerja No Kep-187/Men/1999 tentang Pengendalian Bahan Kimia Berbahaya

- Peraturan Menteri Kesehatan Republik Indonesia Nomor 70 Tahun 2016 tentang Standar dan Persyaratan Kesehatan Lingkungan Kerja Industri
- ACGIH®. 2016. TLVs® and BEIs®

16. OTHER INFORMATION

Composing date :

Revision date : March 2017

Key/legend or acronym used in the SDS :

ACGIH® – The American Conference of Governmental Industrial Hygienists
ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM – American Society for Testing and Materials
BEIs® – Biological Exposure Indices
CAS No. - Chemical Abstract Service Registry Number
IATA – The International Air Transport Association
ICAO – The International Civil Aviation Organization
IMO – The International Maritime Organization
PG – Packaging Group
RID – Regulation concerning the International Carriage of Dangerous Goods by Rail
STEL – Short-Term Exposure Limit
UN – United Nations
USA DOT – United States Department of Transportation
TLVs® – The Threshold Limit Values
TWA – Time Weighted Average

Key literature references and sources for data usedin the SDS : -

Disclaimer

The information is composed based on current knowledge and intended to describe safety, health, and environment hazard of the product. Therefore, it should not be construed as guarantee any specific property of the product. All risks while using this product is the user's responsibility. It is not allowed to make change of this document, except there is legal consent.