

IPIRANGA BRUTUS PROTECTION T5 15W40

MSDS N° 065 Date last revised: 01/07/2015

1. IDENTIFICATION

| Name of the substance or mixture (trade name) | IPIRANGA BRUTUS PROTECTION T5 15W40 |
|---|--|
| Major recommended uses for the substance or mixture | Automotive Engine |
| Company Name | IPIRANGA PRODUTOS DE PETRÓLEO S.A. |
| Address | Rua Monsenhor Manuel Gomes, 140 – São Cristóvão – RJ |
| Contact Phone | 08000 253805 |
| Emergency telephone number | 0800 562023 |

2. HAZARDS IDENTIFICATION

result in a classification

| Product classification | Chemicals not classified as dangerous according to ABNT NBR 14725-2. |
|--------------------------------|--|
| Appropriate labelling elements | |
| GHS Symbol | Not required. |
| Words of warning | Not required. |
| Danger phrases | Not required. |
| Precautionary phrases | General P103 Read the label before use. |
| | Prevention: P264 Wash hands thoroughly after handling. P270 Do not eat, drink or smoke when using this product. |
| | Reply P370 + P378: In case of fire: Use for extinction (see item 5). |
| | Storage P403: Store in a well ventilated place. |
| | Elimination P501: delete the contents/container in accordance with local regulations (see item 13) |
| Other hazards which do not | Has no other dangers. |



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NFPA 704



3. COMPOSITION AND INFORMATION ON INGREDIENTS

| Chemical | This product is a mixture. |
|-------------------------------------|--|
| Common chemical name o generic name | r Lubricating oil. This category encompasses oil blends composed mainly of hydrocarbons having carbon chain between 15 and 50 carbon atoms, and boiling range 371-538 ° C. The components are trade secret |

4. FIRST AID MEASURES

| Inhalation | If exposed to excessive levels of material in the air, remove to fresh air. Get medical attention if cough or difficulty breathing. |
|---|---|
| Eyes | No specific first aid measures are required. As a precaution, remove contact lenses, if applicable, and flush eyes with water. |
| Skin | No specific first aid measures are required. As a precaution, remove clothing and shoes if they have been contaminated. To remove the material from the skin, using soap and water. Throw away contaminated clothing and shoes or wash them thoroughly before using them again. |
| ingestion | If swallowed, seek medical attention immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person. |
| Most important symptoms and effects, both acute and delayed | |
| Note to physician | Ingestion of this product or subsequent vomiting, may have the effect of suction liquid hydrocarbon, which can cause inflammation of the lungs. |



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Extinguishing material Use water or fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames ... Do not apply water jet directly on the product in flames as it may spread and increase fire intensity. specific Dangers High degree of variation depending on the conditions of combustion. A complex mixture of gases, liquids and solids existing in the air, including carbon monoxide, carbon dioxide and unidentified organic compounds will be formed when this material undergoes combustion. Protective Measures Team Firefighters: Use self-contained breathing appropriate clothing and equipment for firefighting. Do not enter confined without proper protective equipment (PPE) areas, firefighting this should include respirators for protection against hazardous products of combustion or the lack of oxygen effects. Isolate the hazard area and prohibiting the entry of persons. In case of fire use water spray to cool containers exposed to fire. Keep safe distance from the flames to avoid burns by irradiation. Use extinguishing processes that preserve the environment

6. MEASURES SPILL OR LEAK

Personal precautions, protective equipment and emergency procedures.

| For personnel that is not part of the emergency services | Isolate the area within a radius of 100 meters, at least in all directions and away the curious. Use clothing, gloves and eye protection. Do not touch, stay or walk through spilled material. Stay out of low areas and in position to keep the wind from behind. |
|--|---|
| To the staff of the emergency service | Use impervious protective clothing and chemical resistant. Provide grounding of all equipment to be used in handling the spillage. Eliminate all possible sources of ignition such as open flames, hot elements without insulation, electrical or mechanical sparks, cigarettes, electric circuits, etc. Prevent the use of any action or procedure causing the generation of sparks or flames. |
| Environmental precautions | Isolate the area of the accident. Prevent the spread of spilled material, avoiding contamination of rivers and springs. Shut off leak, if possible, avoid contact with skin and clothing. Never dispose of spilled material to sewers. Spills should be reported to the manufacturer and / or environmental agencies. |
| Methods and materials for containment and cleaning | Absorb with inert absorbent material (sand, diatomite, vermiculite). Collect all the material in suitable and properly labeled containers for subsequent treatment and disposal |
| | Waste must be disposed of according to local, state or federal environmental laws. |

7. HANDLING AND STORAGE

Precautions for safe handling

No smoking in the workplace.

In places where chemical products are handled should monitor the exposure of workers as PPRA (Environmental Risk Prevention Program) from NR-9.

Handle in accordance with good industrial hygiene and safety practice. Storage facilities and use must be equipped with eyewash facility and a safety shower. The clothing and PPE should always be cleaned and checked before use. Always use for personal hygiene water, soap and cleaning creams. Operating procedures and good



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industrial hygiene help reduce the risk in handling chemicals.

| | Static Hazard: Electrostatic charges may accumulate and create a hazardous condition when you are handling this material. To minimize this hazard, you may need to make a connection or to earth. However, only the use of these two methods is not sufficient to neutralize all loads. Perform a review of all operations that have the potential to generate and accumulate electrostatic charges and / or other sources of fire (including the supply of containers and tanks, spray, cleaning tanks, runs of samples runs of measures, exchange charges, filtering, mixing, agitation, and operations in vacuum trucks), then do so necessary to mitigate such dangerous. |
|--|---|
| | Containers statements: The vessel was not built to withstand pressure. Do not use pressure to empty container because it may rupture with explosive force. The containers or empty containers contain product residue (solid, liquid or vapor) and can be dangerous. These containers should not pressurize, cut, weld, strong, drill, grind weld, nor should they be exposed 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 reconditioner, or must be disposed of properly. |
| Conditions for safe storage, including any incompatibilities | Store in a covered, dry and airy. Protect containers from physical damage. Use and store with adequate ventilation. |
| | Incompatible materials: You may react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc. |
| | Keep container tightly closed when not in use. Such containers should not be reused for other purposes and must be arranged in appropriate locations. |

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

| Control Parameters | Occupational exposure limits Hydrotreated heavy paraffinic distillate: ACGIH / TWA: 5 mg / m³. STEL: 10 mg / m³ |
|------------------------------|---|
| Engineering Control Measures | Ensure adequate ventilation, especially in confined areas. |
| Personal protection | |
| respiratory Protection | Normally, no special respiratory protection is not required. If user operations generate oil mist, you must determine if the existing concentrations in the air are below the occupational exposure limit for mineral oil mist. Otherwise, use approved respirator that provides adequate protection from measured concentrations of this material. For air- purifying respirators, wear particle filter. Use a positive pressure air supplied respirator in circumstances where air-purifying respirators do not provide adequate protection. |
| Hand Protection | Normally, no protective clothing is required. When it may splash, choose protective clothing according to the operations to be conducted, physical requirements and other substances present in the workplace. The recommended materials for protective gloves include: 4H (PE / EVAL), Nitrile Rubber, Silver Shield, Viton. |
| Eye protection / face | Normally it is not required no special eye protection. When there is risk of splash, you must use goggles with side, as a safety measure. |
| Protection for skin | Appropriate clothing industries. |



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9. PHYSICAL AND CHEMICAL

| Aspect | Liquid |
|---|--|
| (physical state, shape, color) | Color L3,0 |
| Odor | Characteristic |
| рН | Not available |
| Melting / freezing point | Not available |
| Initial boiling point and boiling temperature range | Not available |
| Flash Point | 238°C |
| Evaporation rate | Not available |
| Flammability (solid, gas) | Not available |
| Lower Limit / Upper Flammable or explosive | Not available |
| Vapor Pressure | Not available |
| Vapor Density | 0,8828 g/cm ³ @ 20/4°C |
| Relative density | 0,8700 g/cm3 @ 20/4°C |
| Solubility (s) | In water: Insoluble. Soluble in hydrocarbons |
| Coefficient of Participation - n- octanol/water | Not available |
| Autoignition temperature | Not available |
| Decomposition Temperature | Not available |
| Viscosity | 108,80 cSt @ 40ºC |
| | 14,84 cSt @ 100⁰C |
| Pour point | -39ºC |
| TBN | 7,2 mg KOH/g |
| | |

10. STABILITY AND REACTIVITY

| reactivity | | | Not available |
|--------------------------|--------|-----------|--|
| chemical Stat | oility | | Stable under normal handling and storage conditions. |
| Possibility Reactions | of | Hazardous | Not available |



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| Conditions to avoid | Ignition sources, heat, flame. |
|---------------------------------|---|
| incompatible materials | You may react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc. |
| Hazardous Decomposi Products | tion High degree of variation depending on the conditions of combustion. A complex mixture of gases, liquids and solids existing in the air, including carbon monoxide, carbon dioxide and unidentified organic compounds will be formed when this material undergoes combustion. |

11. TOXICOLOGICAL INFORMATION

| Acute Toxicity | This product contains base oils of oil that can be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. |
|---|---|
| Corrosion / irritation to the skin | Not rated |
| Serious eye damage / eye irritation | Not rated. |
| Respiratory or skin sensitization | Not rated. |
| Germ cell mutagenicity | Not rated. |
| carcinogenicity | None of these oils requires warnings about cancer, according to the standard of OSHA's hazard communication (Hazard Communication Standard, 29 CFR 1910.1200). These oils are not in the relationship of the annual report of the NTP (National Toxicology Program), or were classified by IARC (International Agency for Research on Cancer) as carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the ACGIH (American Conference of Governmental Industrial Hygienists) as confirmed carcinogenic to humans (A1), suspected carcinogens to humans (A2), or confirmed animal carcinogen with unknown relevance to humans (A3 |
| Toxicity reproduction | Not rated |
| Organ toxicity specific target - single exposure | Not rated |
| Organ toxicity specific target - repeated exposure | Not rated. |
| Aspiration hazard | Not rated |

12. ECOLOGICAL INFORMATION

| Ecotoxicity | This material is not considered harmful to aquatic organisms. The product was not tested. The statement is derived from the properties of individual components. |
|-----------------------------|--|
| Persistence / degradability | This material is not considered immediate biodegradation material. The product was |



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not tested. The statement is derived from the properties of individual components.

Bioaccumulative potential Bioconcentration factor: Not available data. Fractionation Coefficient Octanol / Water: No data available

Mobility in soil Not available

Other adverse effects Not available

13. CONSIDERATIONS FOR FINAL DESTINATION

Recommended methods for Never discharge into drains or the environment. Product residues should be disposed of in accordance with federal, state and local regulations for health and the environment, and current applicable: ABNT-NBR 10.004/2004 and ABNT-NBR 16725.

Used packaging: His willingness to comply with all applicable health and environmental regulations, obeying the same criteria applicable to products.

14. TRANSPORT INFORMATION

RTPP - Res 420/04 ANTT | IMDG / DPC / ANTAQ | ICAO-TI / IATA-DGFT / ANAC

Product not framed in the resolution into effect on transport of dangerous goods

Other transport information: Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and the measures to take in case of an accident or emergency. Before transporting product containers ensure that they are firmly secured. In each fractional transport container should be properly identified, carrying the labeling required by DOT.

15. REGULATORY INFORMATION

Ordinance No. 229, 2011/MTE (amending Norm "NR 26" which comes Signaling Security).

Decree 2.657/1998 - promulgates the Convention No. 170 of the ILO concerning the safe use of chemicals at work, igned at Geneva on 25 July 1990.

Decree No. 2657 of 1998 (ratified in Brazil Convention No. 170 of the ILO).

Environmental Crimes Law 9.605/1998.

Law 8.098/1990 Code of Consumer Protection.

Regulatory requirements are subject to change and may differ from one region to another, it is the user's responsibility to ensure that their activities comply with local, federal, state and municipal.

CONTROLLED PRODUCT: Not applicable.



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16. OTHER INFORMATION

Prepared by

Via Brazil consultancy in transportation of dangerous goods

"This material safety data sheet for chemical products has been developed in accordance with the guidelines of the NBR 14725 issued by ABNT-Brazilian Association of technical standards. The information contained in this MSDS represents current data and accurately reflect our best knowledge about the appropriate handling of this product under normal conditions and according to the recommendations given on the packaging and in the technical literature. Considering the variety of factors that may affect processing and application, the information contained in this fact sheet does not disclaim liability processors to run their own tests and experiments. Any other use of the product involves the combined use with another product, or that use case other than indicated, is the sole responsibility of the user. "

REFERENCES:

[ABNT NBR 14725-2] - Danger Rating System – GHS

[RESOLUTION No. 420 / 04 ANTT] Agency National Transportation - Supplementary Instructions Approves the Regulation of Land Transportation of Dangerous Goods.

[HSNO] NEW ZEALAND. HSNO Chemical Classification and Information Database (CCID)

[ECHA] European Union. ECHA European Chemical Agency

TERRESTRIAL (RAILWAYS, ROADS): National Land Transport Agency (ANTT);

WATERWAYS (SEA, river, lake): International Maritime Dangerous Goods Code - Code (IMDG Code); Standard -5 Directorate of Ports and Coasts of the Navy Department (CPD): National Agency for Waterway Transportation (ANTAQ);

AIR: International Civil Aviation Organization - Technical Instructions (ICAO -TI). International Air Transport Association - Dangerous Goods Regulations (IATA - DGFT); National Civil Aviation Agency (ANAC).

* Abbreviations:

NA: Not Applicable.

NA: Not available.

OSHA: Administration of Occupational Safety and Health.

LD50: lethal dose for 50% of the infected population.

LC50: Lethal concentration for 50 % of the infected population.

CAS: Chemical Abstracts Service.

TLV - TWA: is the weighted average concentration allowed for a journey of 8 hours of work.

TLV - STEL: is the exposure limit short - term maximum allowable concentration for continuous exposure of 15 minutes

ACGIH is an organization of personnel from government agencies or educational institutions engaged in programs of occupational health and safety.

ACGIH: develops and publishes exposure limits for hundreds of chemical substances and physical agents.



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PEL: maximum allowable concentration of contaminants in air, to which most workers may be repeatedly exposed 8 hours daily, 40 hours a week during the work period (30 years), no adverse health effects.

OSHA: U.S. federal agency with authority to regulatory and compliance provisions in the area of safety and health for industries and businesses in the USA.

IMDG: International Maritine Code for Dangerous Goods - international code for the transport of hazardous materials by sea.

PNEC: Predicted No Effect Concentration.

ILO - International Labour Organization.

MTE - Ministry of Labour and Employment.