STIHL MOTOMIX®

Packaged for Stihl Incorporated, 536 Viking Drive, Virginia Beach, VA 23452

Safety Data Sheet

Conforms to HCS 2012 (29 CFR 1910.1200)

Section 1. Identification

Product identifier

Product Name:	**STIHL MOTOMIX® High Performance Patented Fuel**
Part/Product Number(s):	TR-1270, 7010-871-0204, 7010-871-0234, 7010-871-0235, 7010-871-0249
Material Use:	Premixed 2-cycle engine fuel mixture
Uses advised against:	Not for use in non-2-cycle engines
Manufacturer:	Omni Specialty Packaging, LLC 10399 Hwy 1 South Shreveport, LA 71115 1-318-524-1100
Issuing date:	June 3, 2015
Revision date:	June 4, 2015
Revision number:	001
Company contact:	OMNI EHS Department; E-Mail: sds@osp.cc; Contact phone: 318-524-1100 (Monday-Friday, 8:00 AM – 4:00 PM, CST)
In case of emergency:	CHEMTREC: Within USA and Canada: 1 (800) 524-9300 (24/7) CHEMTREC Outside USA and Canada: +1 703-527-3887 (24/7)

Section 2. Hazards Identification

OSHA/HCS Status: This product is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

US GHS Classification of the substance or Mixture:

Flammable Liquid – Category 1
Aspiration Hazard – Category 1
Skin Corrosion/Irritation – Category 2
Specific Target Organ Toxicity (Single Exposure) – Category 3 (respirator irritation, narcosis)
Hazardous to the Aquatic Environment – Chronic – Category 2

GHS Label Elements

Hazard pictograms:

Signal word: DANGER

Hazard statement:
Extremely flammable liquid and vapor.
Causes skin irritation.
May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.
Toxic to aquatic life with long lasting effects.

Precautionary statements

General: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.
Take precautionary measures against static discharge.
Use personal protective equipment as required.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash hands and forearms thoroughly after handling.
Do not breathe mist/vapors/ sprays.
Use only outdoors or in well-ventilated area.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.

Response: Collect spillage.
In case of fire: Use water spray, fog, dry chemical fire extinguishers or hand held fire extinguisher.
IF ON SKIN (or hair): Wash with plenty of soap and water.
Remove/Take off immediately all contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.

Storage: Store in a well-ventilated place.
Keep cool. Keep container tightly closed.
Store locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards not otherwise classified (HNOC): Defatting to the skin.

Section 3. Composition/Information on Ingredients

Mixture consisting of the following components, special 2-stroke gasoline.

Substance/mixture: Mixture

Components Name	CAS number	Weight %*	GHS Classification
Naphtha (petroleum), full-range alkylated, butane-contg.	68527-27-5	50 – 100	Flam. Liq. 1, Asp. Tox. 1, Skin Irrit. STOT-SE 3, Aquatic Acute 2, Aquatic Chronic 2
Methylbutane (Isopentane)	78-78-4	10 – 25	Flam. Liq. 1, Asp. Tox. 1, STOT-SE 3, Aquatic Chronic 2
Hydrocarbons, C4, 1,3-Butadiene-free, polymd., triisobuylene fraction, hydrogenated	93685-81-5	10 – 25	Flam. Liq. 1, Asp. Tox. 1, Aquatic Chronic 4
2-Cycle Engine Oil Additives Mixture	Proprietary	<1	Not classified

* The exact percentage of composition has been withheld as a trade secret.

Section 4. First Aid Measures

Description of necessary first aid measures

Eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

Skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation or redness develops.

Inhalation: If inhaled, remove to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Get medical

attention immediately.

Ingestion: Do NOT induce vomiting. Do not give liquids. Obtain immediate medial attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration (inhalation into respiratory system). Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Most Important

Symptoms and Effects: Aspiration hazard. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, 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. Eye irritation signs and symptoms may include burning sensation and a temporary redness of the eye. Skin irritation signs and symptoms may include burning sensations, redness, swelling, and /or blisters.

Note to physician: Treat symptomatically.

Section 5. Fire-Fighting Measures

Uniform Fire Code: Class IB

Flash Point: <-56°C (-68.8°F)

Extinguishing Media

Suitable Media: In case of fire, use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water fog, fire fighting foam (suitable for polar solvents), dry chemical, carbon dioxide (CO2) extinguisher or spray.

Unsuitable Media: CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical: Keep product and empty container away from heat and sources of ignition as product will burn. Contact with strong oxidizers may cause fire. Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignitions. Flowing product may be ignited by self-generated static electricity. When mixed with air and exposed to ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Will float on water and can be reignited on the surface of water. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be contained, prevented from being discharged to any waterway, sewer or drain and disposed of in accordance with local regulations.

Hazardous Combustion Products: Combustion products may include the following: Carbon dioxide (CO2) Carbon monoxide (CO), Nitrogen oxides and non-combusted hydrocarbons (smoke).

Protection of Fire Fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Put on appropriate

personal protective equipment. Floors may be slippery; use care to avoid falling.

For emergency responders: Response and clean-up crews must be properly trained and must use proper protective equipment (see Section 8). Evacuate nonessential personnel and remove or secure all sources of ignition. Consider wind direction; stay upwind and uphill, if possible. Evacuate the direction of product travel, diking sewers, etc. to contain spill area. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers by diking, absorbents, or absorbent booms, if possible. The use of fire fighting foam may be useful in certain situations to reduce vapors. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). See Section 12 for ecological information.

Methods and materials for containment and cleaning up

Small Spills: Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large Spills: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non- combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

NOTE: If RQ (Reportable Quantity) is exceeded or if spills enter a body of water, report immediately to the USEPA's National Response Center at (800) 424-8802. Check with your local and state regulators regarding their reporting requirements

Section 7. Handling and Storage

Precautions for safe handling

Protective measures: USE ONLY AS A MOTOR FUEL. DO NOT SIPHON BY MOUTH. Handle as a flammable liquid. Keep away form head, sparks, and open flame! Bond and ground product transfer to reduce the possibility of static-initiation of fire or explosion. Eye protection and face shield should be used if material is used under conditions that increase the chances of splattering. Put on appropriate personal protective equipment (see Section 8). Keep out of reach of children.

Advice on general occupational hygiene: Do not get in eyes, on skin or on clothing. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.
See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, Including any incompatibilities: Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials, strong oxidizing agents (see Section 10) and food and drink. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep container tightly closed and sealed until ready for use. Carry out filling operations only out door or in an area with good ventilation/exhaustion at the workplace. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination. Avoid contaminating soil or releases into sewage or drainage systems and bodies of water.

Bulk material handling: 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.

Section 8. Exposure Controls/Personal Protection

Control parameters

Occupational Exposure Limits

Chemical name	ACGIH		OSHA		NIOSH	
	TLV TWA	STEL	PEL	STEL	TWA	STEL
Naphtha (petroleum), full-range alkylated, butane-contg.	200 ppm	No data	No data	No data	No data	No data
Methylbutane (Isopentane)	600 ppm	No data	No data	No data	No data	No data
Hydrocarbons, C4, 1,3-Butadiene-free, polymd., triisobuylene fraction, hydrogenated	No data	No data	No data	No data	No data	No data

Appropriate engineering controls: Use adequate ventilation to keep vapor concentration of this product below occupational exposure and flammable limits, particularly in confined spaces.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Keep away form foodstuffs, beverages and food. Wash hands, forearms and face thoroughly after handling product before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Avoid contact with the eyes and skin. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection: Wear safety glasses with side shields. A face shield or chemical goggles where there is a possibility of splashing or spraying

Skin and Body Protection

Hand protection: Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile. Always seek advice from your glove suppliers. Consult your supervisor or Standard Operating Procedure (SOP) for special handling instructions.

Body protection: None required for normal product use. For non-routine or spill response, chemical protective closing such as E.I DuPont TyChem® , Saranex® or equivalent recommend based on degree of exposure. For non-routine tasks, personal protection equipment for the body should be selected based on the task being performed and the risks involved.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection: No respiratory protection is normally required if used outdoors or in a well ventilated area. A NIOSH/MSHA approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may exceed exposure limits of odor or irritation. Protection provided by air –purifying respirators is limited.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstances where an air-purifying respirator may not provide adequate protection.

Section 9. Physical and Chemical Properties

Appearance **(Typical or Target)**

Physical State: Liquid
Color: Light green
Odor: Petroleum distillates
Odor threshold: Not available

pH:	Not applicable
Boiling Point:	35 to 180°C (95 to 356°F)
Flash Point (Closed cup):	< -56°C (< -68.8°F) (Typical or Target)
Pour Point:	Not determined
Evaporation rate (Butyl acetate = 1):	Not available
Flammability (solid, gas):	Not applicable. Based on - Physical state
Flammable) Limit in Air	
Lower Flammability Limit (LEL):	1.1%
Upper Flammability Limity (FEL):	6.0%
Vapor pressure at 50 °C:	< 95 kPa
Vapor density (Air = 1):	>1
Relative density at 20 °C:	0.7 g/cm3 (Typical or Target)
Solubility:	Not miscible or difficult to mix
Partition coefficient (n-Octanol/water):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity – Kinematic (cSt (mm2/s)@ 40°C):	Not determined
Viscosity – Dynamic (cSt (mm2/s) @ 100°C):	Not determined
VOCContent:	98.0 g/l / 0.82 lb/gal

Section 10. Stability and Reactivity

Reactivity:	Not reactive under normal storage conditions
Chemical stability:	Stable under normal storage conditions
Possibility of hazardous reactions:	None under normal processing.
Hazardous polymerization:	Hazardous polymerization does not occur.
Conditions to avoid:	Heat, flames and sparks.
Incompatible materials:	Oxidizing agents, Halogens, Halogenated compounds
Hazardous decomposition products:	May include: Fumes, Oil vapors, Smoke, Carbon Oxides (including carbon monoxide and carbon dioxide), Aldehydes, Nitrogen oxides, and incomplete combustion products.

Section 11. Toxicological Information

Information on toxicological effects

Basis for Assessment: Information given is based on product data, a knowledge of the components and the toxicity of similar products.

Likely Routes of Exposure: Exposure may occur via inhalation, ingestion, skin absorption

Substance/Mixture

Acute Toxicity	Oral LD50	Dermal LD50	Inhalation LC50
Naphtha (petroleum), full-range alkylated, butane-contg. (68527-27-5)	>5000 mg/kg (rat)	>2000 mg/kg (rabbit)	>5 mg// (rat)
Methylbutane (78-78-4)	>2000 mg/Kg (rat) (OECD 401)	No data	>25.3 mg/L (rat) 4h (OECD 403)

Aspiration hazard:	Aspiration hazard – Category 1.
Skin Corrosion/Irritation:	Irritating to skin and mucus membranes.
Serious Eye Damage/Irritation:	No irritating effect.
Respiratory Irritation:	No further relevant information available.
Skin Sensitization:	No sensitizing effect known.
Respiratory Sensitization:	No further relevant information available.
Specific Target Organ Toxicity (Single Exposure) - STOT-SE:	Category 3 High concentrations may cause central nervous system (CNS) depression resulting in headaches, dizziness and nausea: continued inhalation may result in unconsciousness and/or death. (Naphtha (petroleum), full-range aklylate, butane-contg., Metylbutane,

Specific Target Organ Toxicity (Repeated Exposure) – STOT-RE: No further relevant information available.

Carcinogenicity: No further relevant information available.

Germ Cell Mutagenicity: No further relevant information available.

Reproductive Toxicity No further relevant information available.

Section 12. Ecological Information

The information is based on data available for the material, the components of the material, and similar materials.

Ecotoxicity: Toxic to fish.

Mobility: No further relevant information available.

Soil/water partition coefficient (K_{OC}): No further relevant information available..

Persistence and degradation
Biodegradation: Not available.

Bioaccumulative potential
Bioaccumulation: No further relevant information available.

Other adverse effects: No further relevant information available.

Other ecological information: Water hazard class 2 (manufacturer Self-assessment): hazardous to water. Do not allow product to reach ground water, water bodies or sewage systems. Danger to drinking water if even small quantities leak into soil. Also, poisonous for fish and plankton in water bodies. Toxic for aquatic organisms.

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Section 13. Disposal Considerations

Disposal recommendations based on material supplied.

Waste treatment methods: This material may be a hazardous waste according to Federal regulations (40 CFR 261). Consult the appropriate state, regional, or local regulations for additional requirements. The generation of waste should be avoided or minimized wherever possible.

Product waste: Significant quantities of waste product residues should not be disposed of via the sanitary sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Contaminated packaging: Empty containers or liners may retain some product residues and could pose a potential fire and explosion hazard. Do not cut, puncture, or weld containers.

Other information: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport Information

General information: Gasoline mixture.

	DOT Classification	IMDG	IATA
UN Number	UN 1203	UN 1203	UN 1203
Proper Shipping Name	Gasoline	Gasoline	Gasoline
Hazard class(es)	3	3	3
Packaging group	II	II	II
Environmental hazards	No	Yes	No

Marine Pollutant	Yes	Yes	-
Addition information	**Limited Quantity :** Yes **Packaging instructions:** **Passenger aircraft** Quantity Limitation: 5 L **Cargo Aircraft:** Quantity Limitation: 60 L **Special provisions** 144, 177, B1, B33, IB2, T8 **Remarks:** May be classed as a Consumer Commodity, ORM-D for Small Packages, see 49CFR173.150	The marine pollutant mark is not required when transported in sized of ≤ 5L or ≤ 5 kg. **Emergency schedules (EmS):** F-E, S-E Limited Quantity (LQ) : 1 L Excepted Quantity (EQ) Code E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml **Special provisions:** 243	The environmentally hazardous substance mark may appear if required by other transportation regulations. **Passenger and Cargo Aircraft:** Quantity Limitation: 5 L Packaging instructions: 353 **Cargo Aircraft Only:** Quantity Limitation: 60 L Packaging instructions: 364 **Limit Quantity – Passenger Aircraft:** Quantity Limitation: 1L Packaging instructions: Y341 **Special provisions:** A100

Special precautions for user: Transport within user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory Information

United States Regulations

United States Inventory (TSCA 8b): All components are listed or exempted.
SARA 302/304: No products were found.

SARA 311/312:

Immediate (Acute) Health Effects:	Yes
Delayed (Chronic) Health Effects:	Yes
Fire Hazard:	Yes
Sudden Release of Pressure Hazard:	No
Reactivity Hazard:	No

SARA 313:
The following components of this material are found on the EPCRA 313 list:
None

Supplier notification: This product does not contain any hazardous ingredients at or above regulated thresholds.

CWA (Clean Water Act): This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA: This material, as supplied, does not contain any substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

State Regulations

Massachusetts: The following components are listed: None
New Jersey: The following components are listed: Methy lbutane
New York: The following components are listed: None
Pennsylvania: The following components are listed: None
California Proposition 65: WARNING: This product does not contain any chemical known to the State of California to cause cancer or to cause birth defects.

Section 16. Other Information

NFPA Rating:	**Health Hazard – 1**	**Flammability – 3**	**Instability/Reactivity – 0**
HMIS Rating:	**Health Hazard – 1**	**Flammability – 3**	**Physical Hazards – 0**

(NFPA & HMIS Hazard Rating Key: 0 - Minimum Hazard; 1 - Slight Hazard; 2 - Moderate Hazard; 3 - High Hazard; 4 - Extreme Hazard; * - Chronic Hazard Indicator, & PPE - Personal Protective Equipment Index A to L. These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS or Hazardous Material Identification System).

Key to abbreviations:

OSHA = Occupational Safety and Health Administration
ACGIH= American Conference of Industrial Hygienists
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service Registry Number
cSt = Centistroke (mm2/s)
GHS = Global Harmonized System of Classification and Labeling Of Chemicals.
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
OEL = Occupational Exposure Limit
SDS = Safety Data Sheet
STEL = Short term exposure Limit
STOT-SE=Specific Target Organ Toxicity-Single Exposure
STOT-RE=Specific Target Organ Toxicity-Repeated Exposure
UN = United Nations
UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transportation of Dangerous Goods

Prepared By: **OMNI Specialty Packaging EH&S Department**

Revision Date: **June 4, 2015**

Status: **Final**

Revision Note: **Revision 001 of OSHA GHS SDS format.**

Consumer Product Improvement Act of 2008, General Conformity Certification

For Consumer Product Packages: This product has been evaluated and is certified to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission. Where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No testing is required to certify compliance with the provisions. The date of the manufacturing is stamped on the product container.

Disclaimer

All reasonably practicable steps have been taken to ensure the information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This information is furnished upon condition that the person receiving it shall make their own determination of the suitability of the material for their particular purpose.

End of Safety Data Sheet