



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS
2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous
Products Regulation (HPR)

Issuing Date 25-Feb-2021 Revision Date 25-Feb-2021 Revision Number 1

1. Identification

Product identifier

Product Name Heavy Duty Metal Protector

Other means of identification

Product Code(s) AMHSC

UN/ID no UN1950

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Aerosol

Restrictions on use Use only for intended applications.

Details of the supplier of the safety data sheet

Supplier Address
AMSOIL INC.
14328-121A Ave
Edmonton, AB T5L 2T2
T: 877-830-4769

Manufacturer Address
AMSOIL INC.
One AMSOIL Center
Superior, WI 54880, USA
T: +1 715-392-7101

E-mail compliance@amsoil.com

Emergency telephone number

Emergency telephone CHEMTREC: Within USA and Canada: 1-800-424-9300
Outside the USA and Canada: +1 703-741-5970
(collect calls accepted) 24/7

2. Hazard(s) identification

Classification

Specific target organ toxicity (repeated exposure)	Category 1
Aspiration hazard	Category 1
Flammable aerosols	Category 1

Label elements

Danger

Hazard statements
Extremely flammable aerosol.
Causes damage to organs through prolonged or repeated exposure.

Harmful to aquatic life.
May be fatal if swallowed and enters airways.



Precautionary Statements - Prevention

Do not breathe dust, fume, gas, mist, vapors and spray. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.

Precautionary Statements - Response

Get medical advice/attention if you feel unwell.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.

Precautionary Statements - Storage

Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant.

Other information

May be harmful in contact with skin. Toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Stoddard solvent	8052-41-3	15-40	-	-
Hydrogenated base oil	64742-49-0	10-30	-	-
Propane	74-98-6	10-30	-	-
Hydrogenated base oil	64742-47-8	10-30	-	-
Heptane	142-82-5	5-10	-	-
2-(2-butoxyethoxy)ethanol	112-34-5	1-5	-	-
Hydrogenated base oil	64742-54-7	1-5	-	-
Hydrogenated base oil	64742-55-8	1-5	-	-
Hydrogenated base oil	64742-56-9	1-5	-	-
Hydrogenated base oil	64742-65-0	1-5	-	-

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

Chemical Additions

The classification as a carcinogen does not apply as it can be shown that the substance(s) contain(s) less than 3% DMSO extract as measured by IP 346.



4. First-aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	Wash skin with soap and water. Take off contaminated clothing. Get medical attention if irritation develops and persists.
Ingestion	ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
Self-protection of the first aider	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. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. May cause temporary eye irritation. Prolonged or repeated contact may dry skin and cause irritation.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.
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5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Water spray.
Unsuitable extinguishing media	DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.
Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers can burst or explode when heated, due to excessive pressure build-up.
Hazardous combustion products	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.



6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- Personal precautions** See section 8 for more information. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment as required.
- Other information** Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
- For emergency responders** Use personal protection recommended in Section 8.

Methods and material for containment and cleaning up

- Methods for containment** Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Flood with water to complete polymerization and scrape off floor.
- Methods for cleaning up** Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
- Reference to other sections** For additional information see: Section 8: Exposure controls/personal protection; Section 12: Ecological information; Section 13: Disposal considerations.

7. Handling and storage

Precautions for safe handling

- Advice on safe handling** Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Avoid contact with used product. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

- Storage Conditions** Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store away from other materials. Keep at a temperature not exceeding 50 °C.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Stoddard solvent 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m³	IDLH: 20000 mg/m³ Ceiling: 1800 mg/m³ 15 min TWA: 350 mg/m³



Propane 74-98-6	: See Appendix F: Minimal Oxygen Content, explosion hazard	TWA: 1000 ppm TWA: 1800 mg/m³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m³	
Heptane 142-82-5	STEL: 500 ppm TWA: 400 ppm	TWA: 500 ppm TWA: 2000 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 1600 mg/m³ (vacated) STEL: 500 ppm (vacated) STEL: 2000 mg/m³	IDLH: 750 ppm Ceiling: 440 ppm 15 min Ceiling: 1800 mg/m³ 15 min TWA: 85 ppm TWA: 350 mg/m³	
2-(2-butoxyethoxy)ethanol 112-34-5	TWA: 10 ppm inhalable fraction and vapor	-	-	
Hydrogenated base oil 64742-54-7	TWA: 5 mg/m³(inhalable fraction)	-	-	
Hydrogenated base oil 64742-65-0	TWA: 5 mg/m³(inhalable fraction)	PEL: 5 mg/m³(mist)	REL: 5 mg/m³(mist) STEL: 10 mg/m³(mist) REL: 350 mg/m³ Ceiling limit: 1,800 mg/m³	
Chemical name	Alberta	British Columbia	Ontario	Quebec
Stoddard solvent 8052-41-3	TWA: 100 ppm TWA: 572 mg/m³	TWA: 290 mg/m³ STEL: 580 mg/m³	TWA: 525 mg/m³	TWA: 100 ppm TWA: 525 mg/m³
Propane 74-98-6	TWA: 1000 ppm		TWA:	TWA: 1000 ppm TWA: 1800 mg/m³
Heptane 142-82-5	TWA: 400 ppm TWA: 1640 mg/m³ STEL: 500 ppm STEL: 2050 mg/m³	TWA: 400 ppm STEL: 500 ppm	TWA: 400 ppm STEL: 500 ppm	TWA: 400 ppm STEL: 500 ppm
2-(2-butoxyethoxy)ethanol 112-34-5			TWA: 10 ppm	

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection

If there is a risk of contact: Tight sealing safety goggles.

Hand protection

If there is a risk of contact: Impervious gloves. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves.

Skin and body protection

If there is a risk of contact: Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state

Liquid - Aerosol



Color	Amber
Odor	Solvent
Odor threshold	No information available

Property	Values	Remarks • Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	-104.4 °C / -156 °F	Estimated
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	9.5% (V) (Estimated)	
Lower flammability or explosive limits	2.2 % (V) (Estimated)	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Other information		
Explosive properties	No information available.	
Oxidizing properties	No information available.	
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	No information available	
Liquid Density	No information available	
Bulk density	No information available	

10. Stability and reactivity

Reactivity	None under normal use conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

11. Toxicological information

Information on likely routes of exposure

Inhalation	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. May cause irritation.



Skin contact	Repeated exposure may cause skin dryness or cracking. May be harmful in contact with skin.
Ingestion	Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. May cause temporary eye irritation. Prolonged contact may cause redness and irritation.
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Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral)	25,369.80 mg/kg
ATEmix (dermal)	4,886.70 mg/kg
ATEmix (inhalation-gas)	1,333,333.30 ppm
ATEmix (inhalation-dust/mist)	1,471.40 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Stoddard solvent	-	> 3000 mg/kg (Rabbit)	-
Hydrogenated base oil	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 73680 ppm (Rat) 4 h
Propane	-	-	> 800000 ppm (Rat) 15 min
Hydrogenated base oil	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Heptane	-	= 3000 mg/kg (Rabbit)	= 103 g/m³ (Rat) 4 h
2-(2-butoxyethoxy)ethanol	= 5660 mg/kg (Rat)	= 2700 mg/kg (Rabbit)	-
Hydrogenated base oil	> 15 g/kg (Rat)	> 5000 mg/kg (Rabbit)	-
Hydrogenated base oil	-	-	= 3900 mg/m³ (Rat) 4 h
Hydrogenated base oil	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 5399 mg/m³ (Rat) 4 h
Hydrogenated base oil	> 15000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 2400 mg/m³ (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	The supplier declares that it can be shown that the substance(s) contain less than 3% DMSO extract as measured by IP 346.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Hydrogenated base oil 64742-54-7	A2	Group 1	Known	X
Hydrogenated base oil	A2	Group 1	Known	X



64742-55-8				
Hydrogenated base oil 64742-56-9	A2	Group 1	Known	X
Hydrogenated base oil 64742-65-0	A2	Group 1	Known	X

Legend
ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.

STOT - single exposure May cause respiratory irritation.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard May be fatal if swallowed and enters airways.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects. Harmful to aquatic life.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrogenated base oil 64742-49-0	-	LC50: =8.41mg/L (96h, Oncorhynchus mykiss)	-	-
Hydrogenated base oil 64742-47-8	-	LC50: =2.2mg/L (96h, Lepomis macrochirus) LC50: =2.4mg/L (96h, Oncorhynchus mykiss) LC50: =45mg/L (96h, Pimephales promelas)	-	-
Heptane 142-82-5	-	LC50: =375.0mg/L (96h, Cichlid fish)	-	-
2-(2-butoxyethoxy)ethanol 112-34-5	EC50: >100mg/L (96h, Desmodesmus subspicatus)	LC50: =1300mg/L (96h, Lepomis macrochirus)	-	EC50: >100mg/L (48h, Daphnia magna)
Hydrogenated base oil 64742-54-7	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
Hydrogenated base oil 64742-55-8	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
Hydrogenated base oil 64742-56-9	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
Hydrogenated base oil 64742-65-0	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation No information available.

Component Information

Chemical name	Partition coefficient
Propane 74-98-6	2.3
Heptane	4.66



Other adverse effects	No information available.
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Contaminated packaging Do not reuse empty containers.

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA Contact supplier for inventory compliance status.			
Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Stoddard solvent	8052-41-3	Present	Active
Hydrogenated base oil	64742-49-0	Present	Active
Hydrogenated base oil	64742-47-8	Present	Active
Propane	74-98-6	Present	Active
Heptane	142-82-5	Present	Active
2-(2-butoxyethoxy)ethanol	112-34-5	Present	Active
Hydrogenated base oil	64742-54-7	Present	Active
Hydrogenated base oil	64742-55-8	Present	Active
Hydrogenated base oil	64742-56-9	Present	Active
Hydrogenated base oil	64742-65-0	Present	Active
Benzene	71-43-2	Present	Active

DSL/NDSL Contact supplier for inventory compliance status.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
2-(2-butoxyethoxy)ethanol - 112-34-5	1.0

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

US State Regulations

California Proposition 65



This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
Benzene - 71-43-2	Carcinogen Developmental Male Reproductive

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Stoddard solvent 8052-41-3	X	X	X
Propane 74-98-6	X	X	X
Heptane 142-82-5	X	X	X
2-(2-butoxyethoxy)ethanol 112-34-5	X	-	X
Hydrogenated base oil 64742-55-8	-	X	-
Hydrogenated base oil 64742-56-9	-	X	-
Benzene 71-43-2	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION			
TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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Revision Note	Initial Release.

Disclaimer
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 a 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.

End of Safety Data Sheet

