SAFETY DATA SHEET



Section 1. Identification

Product name Rustilo DW 90 HF

SDS # 468914 **Code** 468914-US03

Relevant identified uses of the substance or mixture and uses advised against

Product use Corrosion preventative.

For specific application advice see appropriate Technical Data Sheet or consult our

company representative.

Supplier BP Lubricants USA Inc.

1500 Valley Road Wayne, NJ 07470

Telephone: +1-888-CASTROL

EMERGENCY HEALTH

INFORMATION:

+1-800-447-8735

EMERGENCY SPILL +1-800-424-9300 (CHEMTREC USA)

INFORMATION: +1-703-527-3887 (CHEMTREC outside the US)

Section 2. Hazards identification

OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Classification of the substance or mixture

ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms



Signal word Danger

Hazard statements May be fatal if swallowed and enters airways.

Precautionary statements

Prevention Not applicable.

Response IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce

vomiting.

Storage Store locked up.

Disposal Dispose of contents and container in accordance with all local, regional, national and

international regulations.

Hazards not otherwise

classified

Defatting to the skin.

This product contains complex ionic mixtures within the fluid matrix which are an intrinsic part of the product and cannot be separated from the fluid matrix. Toxicology testing has

shown the ionic-mixture containing products exhibit skin and eye irritation properties that are notably attenuated when compared to the individual acid and base components.

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Section 3. Composition/information on ingredients

Substance/mixture

Mixture

Highly refined mineral oil and additives

Ingredient name	%	CAS number
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	≥50 - ≤75	72623-86-0
Distillates (petroleum), hydrotreated heavy naphthenic	≥25 - ≤50	64742-52-5
calcium bis(dinonylnaphthalenesulphonate)	≤5	57855-77-3
Distillates (petroleum), solvent-dewaxed light paraffinic	≤3	64742-56-9
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	≤3	110-25-8
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	≤3	95-38-5
2-(2-butoxyethoxy)ethanol	≤3	112-34-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

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 skin thoroughly with soap and water or use recognized skin cleanser. Remove

contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly

before reuse. Get medical attention if symptoms occur.

Inhalation If inhaled, remove to fresh air. In case of inhalation of decomposition products in a fire,

symptoms may be delayed. The exposed person may need to be kept under medical

surveillance for 48 hours. Get medical attention if symptoms occur.

Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. If

unconscious, place in recovery position and get medical attention immediately. Aspiration hazard if swallowed. Can enter lungs and cause damage. Get medical

attention immediately.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. It may

be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Most important symptoms/effects, acute and delayed

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

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treatment should in general be symptomatic and directed to relieving any effects.

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Product can be aspirated on swallowing or following regurgitation of stomach contents, and can cause severe and potentially fatal chemical pneumonitis, which will require urgent treatment. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided. Gastric lavage should be undertaken only after endotracheal

intubation. Monitor for cardiac dysrhythmias.

Specific treatments No specific treatment.

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Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

Unsuitable extinguishing

media

Do not use water jet.

Specific hazards arising from the chemical

Swarf fires - Neat metal working oils may fume, thermally decompose or ignite if they come into contact with red hot swarf. To minimise the generation of red hot swarf ensure that a sufficient flow of oil is correctly directed to the cutting edge of the tool to flood it throughout cutting operations. As an additional precaution swarf should be regularly cleared from the immediate area to prevent the risk of fire. In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products

Combustion products may include the following:

metal oxide/oxides

carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide)

sulfur oxides (SO, SO₂ etc.) nitrogen oxides (NO, NO₂ etc.)

Special protective actions for fire-fighters

Special protective equipment for fire-fighters

No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA)

and full turnout gear.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Contact 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. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

For emergency responders

Entry into a confined space or poorly ventilated area contaminated with vapor, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. 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. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

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 spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. 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. Contaminated absorbent material may pose the same hazard as the spilled product. Dispose of via a licensed waste disposal contractor.

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Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not swallow. Aspiration hazard if swallowed. Can enter lungs and cause damage. Never siphon by mouth. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Concentrations of mist, fumes and vapors in enclosed spaces may result in the formation of explosive atmospheres. Excessive splashing, agitation or heating must be avoided. During metal working, solid particles from workpieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in a penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the workpiece or tool, such as chromium, cobalt and nickel, can contaminate the metalworking fluid, as can bacteria, and as a result may induce allergic and other skin reactions, especially if personal hygiene is inadequate.

Advice on general occupational hygiene

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 accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Not suitable

Prolonged exposure to elevated temperature

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	ACGIH TLV (United States). TWA: 5 mg/m³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction OSHA PEL (United States). TWA: 5 mg/m³ 8 hours. Issued/Revised: 6/1993
Distillates (petroleum), hydrotreated heavy naphthenic	ACGIH TLV (United States). TWA: 5 mg/m³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction OSHA PEL (United States). TWA: 5 mg/m³ 8 hours. Issued/Revised: 6/1993
calcium bis(dinonylnaphthalenesulphonate)	None.
Distillates (petroleum), solvent-dewaxed light paraffinic	ACGIH TLV (United States). TWA: 5 mg/m³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction OSHA PEL (United States). TWA: 5 mg/m³ 8 hours. Issued/Revised: 6/1993
(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine	None.
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	None.
2-(2-butoxyethoxy)ethanol	ACGIH TLV (United States). TWA: 10 ppm 8 hours. Issued/Revised:

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Version 6.01 Date of issue 12/19/2023. Format US Language ENGLISH

Section 8. Exposure controls/personal protection

3/2012 Form: Inhalable fraction and vapor

While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

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

Wash hands, forearms and face thoroughly after handling chemical products, 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. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection Skin protection Hand protection

Safety glasses with side shields.

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Body protection

Use of protective clothing is good industrial practice.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. For protection against metal working fluids, respiratory protection that is classified as "resistant to oil" (class R) or oil proof (class P) should be selected where appropriate. Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m3), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter

(for oil mists less than 125 mg/m3).

Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary.

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Section 8. Exposure controls/personal protection

The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state Liquid.

Color Yellow. [Light] Odor Not available. Odor threshold Not available. Hq Not applicable. Not available. Melting point/freezing point **Boiling point, initial boiling** Not available.

point, and boiling range

Open cup: 168.3°C (334.9°F) [Cleveland]

Evaporation rate

Not available.

Flammability

Flash point

Not applicable. Based on - Physical state

Lower and upper explosion limit/flammability limit

Vapor pressure

Not available.

	Vapo	r Pressu	essure at 20°C Vapor pressure at 50		°C Vapor pressure at 50	
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil- based	<0.08	<0.011	ASTM D 5191			
Distillates (petroleum), hydrotreated heavy naphthenic	<0.08	<0.011	ASTM D 5191			
Distillates (petroleum), solvent-dewaxed light paraffinic	<0.08	<0.011	ASTM D 5191			
2-(2-heptadec-8-enyl- 2-imidazolin-1-yl)ethanol	<0.01	<0.0013	OECD 104			
2-(2-butoxyethoxy) ethanol	0.02	0.0027				

Relative vapor density

Not available. **Density**

Solubility(ies)

Not available.

<1000 kg/m³ (<1 g/cm³) at 15°C

Partition coefficient: n-

octanol/water

Not applicable.

Auto-ignition temperature

Ingredient name	°C	°F	Method
2-(2-butoxyethoxy)ethanol	210	410	DIN 51794

Decomposition temperature

Not available.

Viscosity

Kinematic: 14 mm²/s (14 cSt) at 40°C

VOC

44.8 g/l

Particle characteristics

Median particle size

Not applicable.

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Section 10. Stability and reactivity

Reactivity No specific test data available for this product. Refer to Conditions to avoid and

Incompatible materials for additional information.

Chemical stability The product is stable.

Possibility of hazardous

reactions

Under normal conditions of storage and use, hazardous reactions will not occur.
Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid Avoid all possible sources of ignition (spark or flame).

Incompatible materialsReactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition

products

Under normal conditions of storage and use, hazardous decomposition products should

not be produced.

Section 11. Toxicological information

Information on toxicological effects

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	Category 2		digestive system, thymus

Aspiration hazard

Name	Result
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	ASPIRATION HAZARD - Category 1

Information on the likely

routes of exposure

Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

Eye contact

No known significant effects or critical hazards.

Skin contact

No known significant effects or critical hazards.

Inhalation Exposure to decomposition products may cause a health hazard. Serious effects may

be delayed following exposure.

Ingestion Aspiration hazard if swallowed -- harmful or fatal if liquid is aspirated into lungs.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact No specific data.

Skin contact Adverse symptoms may include the following:

irritation dryness cracking

Inhalation No specific data.

Ingestion Adverse symptoms may include the following:

nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate Not available.

effects

Potential delayed effects Not available.

Long term exposure

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Section 11. Toxicological information

Potential immediate

Not available.

effects

Potential delayed effects Not available.

Potential chronic health effects

GeneralNo known significant effects or critical hazards.CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
	50005 mg/kg 150.01 mg/l

Section 12. Ecological information

Toxicity

No testing has been performed by the manufacturer.

Persistence and degradability

Not expected to be rapidly degradable.

Bioaccumulative potential

Not available.

Mobility in soil

Mobility

Soil/water partition

Not available.

coefficient (Koc)

Liquid. insoluble in water.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

Special precautions for user

Not available.

Transport in bulk according

Not available.

to IMO instruments

Section 15. Regulatory information

U.S. Federal regulations

United States inventory (TSCA 8b)

All components are active or exempted.

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 311/312

Classification ASPIRATION HAZARD - Category 1

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	2-(2-butoxyethoxy)ethanol	112-34-5	1
Supplier notification	2-(2-butoxyethoxy)ethanol	112-34-5	1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts The following components are listed: OIL MIST, MINERAL; OIL MIST, MINERAL;

MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-DEWAXED LIGHT

PARAFFINIC

New Jersey The following components are listed: GLYCOL ETHERS

Pennsylvania None of the components are listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

Other regulations

Australia inventory (AllC) All components are listed or exempted.

Canada inventory At least one component is not listed in DSL but all such components are listed in NDSL.

China inventory (IECSC) All components are listed or exempted.

Japan inventory (CSCL) All components are listed or exempted.

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Section 15. Regulatory information

Korea inventory (KECI) **Philippines inventory**

(PICCS)

All components are listed or exempted. All components are listed or exempted.

Taiwan Chemical Substances Inventory

(TCSI)

REACH Status

All components are listed or exempted.

For the REACH status of this product please consult your company contact, as identified

in Section 1.

Section 16. Other information

National Fire Protection Association (U.S.A.)



History

Date of issue/Date of

revision

Date of previous issue

Prepared by

06/24/2022.

12/19/2023.

Product Stewardship

Key to abbreviations ACGIH = American Conference of Industrial Hygienists

> ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

CAS Number = Chemical Abstracts Service Registry Number

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as

modified by the Protocol of 1978. ("Marpol" = marine pollution)

OEL = Occupational Exposure Limit

SDS = Safety Data Sheet STEL = Short term exposure limit TWA = Time weighted average

UN = United Nations

UN Number = United Nations Number, a four digit number assigned by the United

Nations Committee of Experts on the Transport of Dangerous Goods.

Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0,

64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1

Indicates information that has changed from previously issued version.

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

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