

Tenkoz, Inc.
SAFETY DATA SHEET

Parity™ Herbicide

Version 5 / USA
102000000828

1/13
Revision Date: 12/05/2013
Print Date: 11/06/2015

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name	Parity™ Herbicide
Product code (UVP)	05939054
SDS Number	102000000828
EPA Registration No.	264-666-55467

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

Use	Herbicide
Restrictions on use	See product label for restrictions.

Information on manufacturer

Tenkoz, Inc.
1725 Windward Concourse, Ste 410
Alpharetta, GA 30005 United States

Emergency telephone no.

All Emergencies, 24hr/ 7 days 1-800-424-9300

Product Information

Telephone No.

SDS Information or Request

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Aspiration hazard : Category 1

Eye irritation : Category 2A

Skin irritation : Category 2



Signal word: Danger

Hazard statements

May be fatal if swallowed and enters airways.

Causes serious eye irritation.

Causes skin irritation.

Precautionary statements

Wash thoroughly after handling.

Wear protective gloves and eye/face protection.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Do NOT induce vomiting.

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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

Specific measures (see supplemental first aid instructions on this label).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Store locked up.

Dispose of contents/container in accordance with local regulation.

Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Average % by Weight
Fenoxaprop-P-ethyl	71283-80-2	11.53
Mefenpyr-diethyl	135590-91-9	3.18
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	57.40
Ethoxy (7) tridecanol	78330-21-9	15.50
Naphthalene	91-20-3	8.10

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice

When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

Inhalation

Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.

Skin contact

Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If eye irritation or redness persists, see an ophthalmologist.

Ingestion

Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms

Headache, Nausea, Dizziness, Somnolence

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Aspiration may cause pulmonary oedema and pneumonitis.

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Inhalation may provoke the following symptoms:

Cough, Shortness of breath, Cyanosis, Fever

Indication of any immediate medical attention and special treatment needed

Risks	Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard.
Treatment	Treat symptomatically. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. In case of aspiration intubation and bronchial lavage should be considered. Monitor: kidney, liver and pancreas function. There is no specific antidote. Contraindication: derivatives of adrenaline.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media	
Suitable	Water spray, Carbon dioxide (CO ₂), Foam, Sand
Unsuitable	High volume water jet
Special hazards arising from the substance or mixture	In the event of fire the following may be released: Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NO _x)
Advice for firefighters	
Special protective equipment for fire-fighters	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
Further information	Keep out of smoke. Fight fire from upwind position. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Do not allow run-off from fire fighting to enter drains or water courses. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Flash point	108 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	Not explosive

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

Additional advice Do not allow to enter soil, waterways or waste water canal.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.

Advice on protection against fire and explosion Keep away from heat and sources of ignition.

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Fenoxaprop-P-ethyl	71283-80-2	2.6 mg/m ³ (TWA)		OES BCS*

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Mefenpyr-diethyl	135590-91-9	10 mg/m3 (OES BCS)		OES BCS*
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	2560 ug/m3460 ppm (ST ESL)	10 2003	TX ESL
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	256 ug/m346 ppm (AN ESL)	10 2003	TX ESL
Naphthalene	91-20-3	10 ppm (TWA)		OES BCS*
Naphthalene	91-20-3	10 ppm (TWA)	02 2012	ACGIH
Naphthalene	91-20-3	15 ppm (STEL)	02 2012	ACGIH
Naphthalene	91-20-3	10 ppm (TWA)	02 2013	ACGIH NIC
Naphthalene	91-20-3	50 mg/m3 / 10 ppm (REL)	2010	NIOSH
Naphthalene	91-20-3	75 mg/m3 / 15 ppm (STEL)	2010	NIOSH
Naphthalene	91-20-3	50 mg/m3 / 10 ppm (PEL)	02 2006	OSHA Z1
Naphthalene	91-20-3	75 mg/m3 / 15 ppm (STEL)	1989	OSHA Z1A
Naphthalene	91-20-3	50 mg/m3 / 10 ppm (TWA)	1989	OSHA Z1A
Naphthalene	91-20-3	75 mg/m3 / 15 ppm (STEL)	06 2008	TN OEL
Naphthalene	91-20-3	50 mg/m3 / 10 ppm (TWA)	06 2008	TN OEL
Naphthalene	91-20-3	10 ppb (AN ESL)	07 2011	TX ESL
Naphthalene	91-20-3	38 ppb (ST ESL)	02 2013	TX ESL
Naphthalene	91-20-3	50 ug/m3 (AN ESL)	07 2011	TX ESL
Naphthalene	91-20-3	200 ug/m3 (ST ESL)	02 2013	TX ESL
Naphthalene	91-20-3	75 mg/m3 / 15 ppm (STEL)	08 2010	US CA OEL
Naphthalene	91-20-3	50 mg/m3 / 10 ppm (TWA PEL)	08 2010	US CA OEL

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in

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	accordance with the appropriate regulatory standards and/or industry recommendations.
Hand protection	Chemical resistant nitrile rubber gloves
Eye protection	Goggles
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	light yellow
Physical State	Liquid
Odor	aromatic
Odour Threshold	no data available
pH	6.7 (1 %) emulsion in water
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	1.03 g/cm ³ at 20 °C
Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	emulsifiable
Minimum Ignition Energy	not applicable
Decomposition temperature	Stable under normal conditions.
Partition coefficient: n-octanol/water	no data available

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Viscosity	10.1 mPa.s at 40 °C
Flash point	108 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	Not explosive
Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	Stable under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid	freezing Heat, flames and sparks.
Incompatible materials	Store only in the original container.
Hazardous decomposition products	Thermal decomposition can lead to release of: Carbon monoxide Hydrogen chloride (HCl) Nitrogen oxides (NOx) Sulphur oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Eye contact, Skin contact, Inhalation, Ingestion
Immediate Effects	
Eye	Severe eye irritation.
Skin	Severe skin irritation.

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Ingestion	Harmful if swallowed.
Inhalation	May be harmful if inhaled.
Information on toxicological effects	
Acute oral toxicity	LD50 (rat) 3,254 mg/kg
Acute inhalation toxicity	LC50 (rat) > 5.4 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. LC50 (rat) > 21.6 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.
Acute dermal toxicity	LD50 (rat) > 5,000 mg/kg
Skin irritation	Severe skin irritation. (rabbit)
Eye irritation	Severe eye irritation. (rabbit)
Sensitisation	Non-sensitizing. (guinea pig) OECD Test Guideline 406, Buehler test

Assessment repeated dose toxicity

Fenoxaprop-P-ethyl did not cause specific target organ toxicity in rats. Fenoxaprop-P-ethyl caused specific target organ toxicity in experimental animal studies in mice in the following organ(s): kidneys.
Mefenpyr-diethyl did not cause specific target organ toxicity in experimental animal studies.

Assessment Mutagenicity

Fenoxaprop-P-ethyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Mefenpyr-diethyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

Fenoxaprop-P-ethyl demonstrated no carcinogenic potential in a lifetime feeding study in rats. Fenoxaprop-P-ethyl caused an increased incidence of liver tumours in mice at high doses. Fenoxaprop-P-ethyl causes tumours through peroxisome proliferation. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans. Mefenpyr-diethyl was not carcinogenic in lifetime feeding studies in rats and mice. This product contains $\geq 1\%$ naphthalene. Naphthalene caused an increased incidence of tumours after chronic inhalation of high vapour concentrations in the following organ: Respiratory Tract. The tumours seen with naphthalene were caused through a non-genotoxic mechanism, which is not relevant at low doses.

ACGIH

Naphthalene	91-20-3	Group A4
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NTP

Naphthalene	91-20-3
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IARC

Naphthalene

91-20-3

Overall evaluation: 2B

OSHA

None.

Assessment toxicity to reproduction

Fenoxaprop-P-ethyl did not cause reproductive toxicity in a two-generation study in rats.

Mefenpyr-diethyl did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Fenoxaprop-P-ethyl did not cause developmental toxicity in rats and rabbits.

Mefenpyr-diethyl caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Mefenpyr-diethyl are related to maternal toxicity.

Further information

Only acute toxicity studies have been performed on the formulated product.

The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish

LC50 (Rainbow trout (*Oncorhynchus mykiss*)) 1.9 mg/l
Exposure time: 96 h
Test conducted with a similar formulation.

Toxicity to aquatic invertebrates

EC50 (Water flea (*Daphnia magna*)) 4.2 mg/l
Exposure time: 48 h
Test conducted with a similar formulation.

Toxicity to aquatic plants

EC50 (*Pseudokirchneriella subcapitata*) 1.47 mg/l
Exposure time: 72 h
Test conducted with a similar formulation.

Biodegradability

Fenoxaprop-P-ethyl: not rapidly biodegradable

Mefenpyr-diethyl: not rapidly biodegradable

Koc

Fenoxaprop-P-ethyl: Koc:11354

Mefenpyr-diethyl: Koc:625

Bioaccumulation

Fenoxaprop-P-ethyl: Bioconcentration factor (BCF) 338
Does not bioaccumulate.

Mefenpyr-diethyl: Bioconcentration factor (BCF) 232
Does not bioaccumulate.

Mobility in soil

Fenoxaprop-P-ethyl: Immobile in soil

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Mefenpyr-diethyl: Slightly mobile in soils

Additional ecological information

No other effects to be mentioned.

Environmental precautions

Drift or runoff from treated areas may adversely affect non-target plants.
Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.
Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.
Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Dispose in accordance with all local, state/provincial and federal regulations.
Follow advice on product label and/or leaflet.

Contaminated packaging

Triple rinse containers.
Add washings to sprayer at time of filling.
Do not re-use empty containers.
Puncture container to avoid re-use.
Follow advice on product label and/or leaflet.

RCRA Information

Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR

UN number

3082

Class

9

Packaging group

III

Marine pollutant

Marine pollutant

Proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID,
N.O.S.

(FENOXAPROP-P-ETHYL, NAPHTHALENE)

RQ

Reportable Quantity is reached with 1,234 lb of product.

IMDG

UN number

3082

Class

9

Packaging group

III

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Marine pollutant YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(FENOXAPROP-P-ETHYL SOLUTION)

IATA

UN number 3082
Class 9
Packaging group III
Environm. Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(FENOXAPROP-P-ETHYL SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: COMPOUNDS, TREE OR WEEDKILLING, N.O.I., other than
poison; HAVING A DENSITY OF GREATER THAN 20 LBS.
PER CUBIC FOOT

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 264-666-55467

US Federal Regulations

TSCA list

Solvent Naphtha (petroleum), heavy aromatic 64742-94-5
Ethoxy (7) tridecanol 78330-21-9
Naphthalene 91-20-3

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

Naphthalene 91-20-3 0.1%

US States Regulatory Reporting

CA Prop65

This product contains a chemical known to the State of California to cause cancer.

Naphthalene 91-20-3

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

Naphthalene 91-20-3 CA, CT, MN, NJ

Canadian Regulations

Canadian Domestic Substance List

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Solvent Naphtha (petroleum), heavy aromatic	64742-94-5
Ethoxy (7) tridecanol	78330-21-9
Naphthalene	91-20-3

Environmental

CERCLA

Naphthalene	91-20-3	100 lbs
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Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

Solvent Naphtha (petroleum), heavy aromatic	64742-94-5
Naphthalene	91-20-3

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Warning!

Hazard statements: Causes substantial but temporary eye injury.
Causes skin irritation.
Harmful if swallowed.
Do not get in eyes, on skin, or on clothing.
Wash thoroughly with soap and water after handling.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 2 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

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This information is provided in good faith but without express or implied warranty. The customer assumes

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