Safety Data Sheet

SDS: 2/27/23

Section 1 – Chemical Product and Company Identification

Product Name: SMASH IMPACT

EPA Reg. #: 83529-338

Product Use: Herbicide

Company Identification: Sharda USA LLC
P.O. Box 640
Hockessin DE 19707

Transport Emergency: CHEMTREC 1-800-424-9300

Section 2 – Hazards identification

Classification of substance:

May damage the unborn child.
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects.

GHS labeling elements:
The substance is classified and labeled according to the Globally Harmonized System (GHS):

Hazard pictograms:

Signal Word: Danger

Hazard statements:
H360-May damage the unborn child.
H400-Very toxic to aquatic life.
H410-Very toxic to aquatic life with long lasting effects.

Precautionary Statements:
P273-Avoid release to the environment.
P280-Wear protective gloves, protective clothing and eye protection or face protection.

P201-Obtain special instructions before use.
P202-Do not handle until all safety precautions have been read and understood.
P308+P313-If exposed or concerned: Get medical attention.
P391-Collect spillage.
P405-Store locked up.
P501-Dispose of contents/container in accordance with local regulations.

Section 3 – Composition/information of ingredient

Chemical Name	Trade names and Synonyms	**Percent**	**CAS No.**
Topramezone	[3-(4,5-dihydro-isoxazolyl)-2-methyl-4-(methylsulfonyl) phenyl](5-hydroxy-1-methyl-1H-pyrazol-4-yl)methanone	**29.7%**	
Inert Ingredients	Proprietary components	**70.3%**	

***Proprietary information**

Section 4 – First Aid Measures

Swallowed:	Call a physician or poison control center immediately for treatment advice. Do not induce vomiting as it may cause aspiration pneumonia. Do not give anything by mouth to an unconscious person.
Skin:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes.
Eyes:	May cause irritation do not rub eyes. Hold eye open and rinse slowly and gently with for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
Inhalation:	May cause irritation. Remove to fresh air. If person stops breathing or irregular, give artificial respiration and supply oxygen. Call a poison control center or doctor for further treatment advice

Most important symptoms and effects, both acute and delayed Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed treatment: Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

Section 5 – Fire Fighting Measure

Extinguishing media: Water Spray, Foam, carbon dioxide, or dry chemical is preferred.

Unsuitable: High Volume water jet.

Fire and Explosive Hazards: Can burn in fire, it may release irritating and toxic gases due to thermal decomposition or combustion.

Special fire fighting procedures: Evacuate the area and fight fire upwind from a safe distance to avoid

hazardous decomposition products. Foam Fire-extinguishing system is preferred because uncontrolled water can spread possible contamination. Fireman should wear positive pressed freely breathing devices, complete fire protection clothes and shoes. Do not access if tank is on fire. Use water to cool exposed containers to extinguish fire. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Avoid inhalation of materials or combustion by-product. Vapor or gas is burned at distant ignition sources can be spread quickly.

Reference to other sections:

See Section 10 for decomposition products.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Keep unprotected person's way. Isolate hazard area. Avoid contact with spilled product or contaminated surface. Shut off cource of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions: Do not apply this product directly to water, surface waters, or water runoff areas. Avoid spray drift or other means of contamination to non-target areas. Do not discharge the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Methods and material for containment and cleaning up:

In case small leak or spill: soak up with sand, clay, sawdust, earth or synthetic absorbent and dispose of waste in compliance with local, state, and Federal regulations. Sweep up material, place in a bottle (non-leaking container), and hold for waste disposal. Area can be washed down with a suitable solution of bleach or soda ash. Follow this by washing with strong soap and water solution. Absorb any excess liquid as indicated above, and add to the disposal container. Keep product contaminated materials and wash water out of stream, groundwater, and sewers. Wash exposed body areas thoroughly after handling. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

In case large leak or spill:. Wear appropriate respirator and other protective clothing. Shut off source of leak only if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, other suitable material; place in non-leaking containers and seal tightly for proper disposal. Flush area with water to remove trace residue; dispose of flush solution as above. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Section 7 – Handling and Storage

Handling

Precautions for safe handling: Ensure adequate ventilation. Handle and open container in a manner as to prevent spillage. Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues

to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Advice on protection against fire and explosion: Keep away from heat and sources of ignition. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Hyenine measures: Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing hum, using tobacco, using the toilet or apply cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for Safe Storage, including any incompatibilities

Storage: Store in original container only and out of the reach of children. Keep container closed when not in use. Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Keep away from direct sunlight, ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed. Protect from temperatures below 0°C. The product can crystallize below the limit temperature. Protect from temperature above 40°C. Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

Requirements to be met by storerooms and receptacles: Store in a secure, dry and temperate area. Do not use or store around the home.

Reference to other sections:

See Section 10 for incompatibilities

Section 8 – Contact Controls and Personal Protection

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal Protection

Respirators: Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles such as splash resistant safety goggles with a secondary protection faceshield.

Body: Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

Hands: Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

General protective and hygienic measures: Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash.

Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Other conditions: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Section 9 – Physical and Chemical Properties

Information on basic physical and chemical properties

General Information:

Appearance and Physical State: liquid, aromatic odour

Color: off white

pH Value: 4.23 (1% sol at 25oC)

Viscosity: Not available

Vapor Pressure (25 °C): Not available

Melting point: Not available

Boiling Point: Not applicable

Specific Gravity: Not available

Comparative concentration (water: 1): Not available

Quantity of heat in burning (KJ/mol): Not available

Density (g/ml): 1.1

Critical pressure (Mpa): Not available

Critical temperature: Not available

Flash point (C): Not available

Flammability Limits: Not available

Burning temperature (C): Not available

Solubility: Dispersible in water

Section 10 – Stability and Reactivity

Chemical Stability: This material is stable at the normal storage conditions.

Incompatible to Avoid: strong acids, strong bases, strong oxidizing agents

Conditions to Avoid: Heat, flames and sparks. Avoid electro-static charge. Avoid prolonged storage. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Decomposition Products: No data available.

Hazardous Polymerization: No decomposition product expected under normal conditions of use. Prolonged thermal loading can result in products of degradation being given off.

Reference to other sections:

See Section 5 for static discharge potential.

Section 11 – Toxicological Information

Exposure routes: Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Primary irritant effect:

If swallowed: Slightly toxic after single ingestion.

On eyes: Causes redness, irritation, tearing

On the skin: May cause slight irritation.

Information on toxicological effects

Acute oral toxicity: LD50 (Rats) > 2,000 mg/kg

Acute inhalation Toxicity: LD50 (Rat) > 5.8 mg/l

Exposure time 4: h

Acute dermal toxicity: LD50 (Rabbit) > 4,000 mg/kg

Skin irritation: slight irritation (Rabbit)

Eye irritation: slight irritation (Rabbit)

Sensitization: The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. There is no evidence of a skin-sensitizing potential.

STOT-Single Exposure: Not available

STOT-Repeated Exposure: Not available

Aspiration Hazard: Not available

Chronic Toxicity/Effects

Repeated dose toxicity: Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Topramezone technical

Assessment of repeated dose toxicity: *Adaptive effects were observed after repeated exposure in animal studies.*

Genetic Toxicity: Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity: Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Topramezone technical

Assessment of carcinogenicity: *When given in high doses, the substance was carcinogenic in animal studies. Based on its mechanism of action, a carcinogenic potential is not expected after exposure to low doses.*

Reproductive toxicity: Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity: Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Topramezone

Assessment of teratogenicity: *The results of animal studies gave indication of a developmental toxic/teratogenic effects with high doses.*

Medical conditions aggravated by overexposure: Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

Section 12 – Ecological Data

Eco-toxicity:

Aquatic Toxicity

Assessment of Aquatics toxicity: There is a high probability that the product is not acutely harmful to fish. There is a high probability that the product is not acutely harmful to aquatic invertebrates. Very toxic (acute effect) to aquatic plants.

Toxicity to fish: LC50 (96 h) 8.71 mg/l, Oncorhynchus mykiss

Aquatic invertebrates: EC50 (48 h) 12.1 mg/l, Daphnia magna

Aquatic Plants: EC50 (7 d) 0.0008 mg/l (growth rate), Lemna gibba (OECD guideline 221)

Chronic toxicity to aquatic invertebrates: No observed effect concentration (35 d) 0.12 mg/l, Mysidopsis bahia

Toxicity to fish:

Information on: Topramezone

LC50 (96 h) > 100 mg/l, Oncorhynchus mykiss (OECD 203; ISO 7346; 84/449/EEC, C.1, static)
Nominal concentration.

Aquatic Invertebrates:

Information on: Topramezone

EC50 (48 h) > 100 mg/l, Daphnia magna

Aquatic plants:

Information on: Topramezone

EC50 (96 h) 67.7 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201)

Assessment of terrestrial toxicity:

With high probability not acutely harmful to terrestrial organisms.

Bioaccumulation potential:

Information on: Topramezone technical

Bioconcentration factor*: 0.69 (42 d), Lepomis macrochirus (OPPTS 850.1730 (EPA Guideline))*
Does not significantly accumulate in organisms.

Mobility in soil

Assessment transport between environmental compartments: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Topramezone technical

Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Environmental precaution: 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. Drift or runoff from treated areas may adversely affect non-target plants. Apply this product as specified on the label.

Section 13 – Disposal Considerations

Waste Disposal: Do not contaminate water, food, or feed by disposal. Dispose of waste in accordance with all applicable Federal, State, and local laws. Improper disposal of excess pesticide, spray mixture, or rinsate is violation of Federal Law. If the waste cannot be disposed of by use according to label instructions contact your

State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Triple rinse (or equivalent), then offer for recycling or reconditioning if container reuse is permitted. If container reuse is prohibited, puncture metal containers and dispose of in a sanitary landfill, or by other approved State and local authorities, if burned, stay out of smoke.

Section 14 – Transport Information

49 CFR Not dangerous goods/ not hazardous material

IMDG

UN Number	30782
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARFOUD SUBSTANCE, LIQUID N.OS. (TOPRAMEZONE)

IATA

UN Number	3082
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARFOUD SUBSTANCE, LIQUID N.OS. (TOPRAMEZONE)

Section 15 – Regulatory Data

FIFRA Classification: This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also included other important information, including direction for use. Following is the hazard information as required on the pesticide label:

CAUTION
Harmful if swallowed.
Harmful if absorbed through skin.
Cause moderate eye irritation.
Avoid contact with skin, eyes, or clothing.
Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacoo, or using toilet.
Remove and wash contaminated clothing before reuse.

TSCA List:

Registration status:

Crop Protection	**TSCA, US**	**released/listed**
Chemical	**TSCA, US**	**blocked/not listed**

US States Regulatory Reporting

CA Prop 65

Based on an evaluation of the product's composition and the use(s), this product does not require a California Proposition 65 Warning.

Section 16 – Additional information

Reference: The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein. This Safety Data Sheet was compiled with data and information from the following source: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

SDS Date issue: 2/27/23