SAFETY DATA SHEET

190 DEGASSER - TABLET

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	190 DEGASSER
Synonyms:	N/A
Active ingredient:	Hexachloroethane
CAS-No. :	67-72-1
Recommended use(s) of the chemical and restrictions on use:	Tablet for use in foundry industry for degassing and grain refining of Aluminum alloys
Supplier's details:	Skyline Chemical Corp. P.O. Box 53663, Irvine, California 92619 Tel +1-714-290-8866
Emergency phone number:	CHEMTREC 1-800-424-9300 or +1-703-741-5500 (24 hour emergency response number)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Hazard statement(s)	
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Carcinogen	Carcinogenicity
Eye Irritant	Eye irritation

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects

2.2 GHS Label elements

Hazard pictograms

Signal word Warning

Hazard statement(s):

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ eye protection/ face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	If exposed or concerned: Get medical advice/ attention.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS:

NFPA Rating	
Health	2
Fire	0
Reactivity	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Component(s) : Hexachloroethane, Potassium Fluoborate

Ingredient	CAS #	Percent range
Hexachloroethane	67-72-1	75-95%
Potassium Fluoborate	14075-53-7	5-25%

4. FIRST-AID MEASURES

4.1 Description of first aid measures

General advice: Consult a physician. Provide this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

If medical advice is needed, have safety data sheet available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Hydrogen chloride gas

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas.
Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into
The environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Use with adequate ventilation.
Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse. Immediately change contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Storage area: Store away from heat.
Packaging: Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters

Components	CAS No.	Value	Control Parameter	Basis
Hexachloroethane	67-72-1	TWA	1 ppm	USA. ACGIH Threshold limit values (TLV)
	Remark	Liver &kidney damage Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption.		
		TWA	1ppm 10mg/m^3	USA.NIOSH Recommended Exposure Limited.
		Potential Occupational Carcinogen See Appendix C See Appendix A Potential for dermal absorption		
		TWA	1ppm 10mg/m^3	USA. Occupational Exposure Limited. (OSHA) –Table Z-1 Limited for Air Contaminants.
		Skin designation The value in mg/ m^3 approximate.		
		TWA	1ppm 10mg/m^3	USA. OSHA –TABLE Z-1 Limited for Air Contaminants - 1910.1000
		Skin Notation		

Components	CAS No.	Value	Control Parameter	Basis
Potassium Fluoborate	14075-53-7	TWA	2.5 mg/m^3	OSHA PEL/ACGIH TLV: 2.5 mg/m^3

8.2 Exposure controls

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Impervious clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls if the respirator is the sole means of protection use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on physical and chemical properties

- Appearance — Form: Tablet
Color: White
- Odor — Typical camphor

• Odor threshold	No data available
• pH	No data available
• Melting point	183 - 187°C
• Initial boiling point/range	No data available
• Flash point	No data available
• Evaporation rate	No data available
• Flammability (solid, gas)	No data available
• Vapor pressure	0.5 hPa (0.4 mmHg) at 20.0 °C (68.0 °F)
• Vapor density	No data available
• Relative density	2.08 g/mL at 25 °C (77 °F)
• Water solubility	No data available
• Auto-ignition	No data available
• Decomposition	No data available
• Viscosity	No data available
• Explosive properties	No data available
• Oxidizing properties	No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity: No data available
10.2 Chemical stability: Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions: No data available
10.4 Conditions to avoid: No data available
10.5 Incompatible materials: Strong oxidizing agents, strong bases
10.6 Hazardous decomposition products: CO, CO2, hydrogen chloride gas & phosgene gas
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity
LD50 Oral - guinea pig - 4,970 mg/kg
TDLo Oral - rat - female - 5,500 mg/kg
TDLo Oral - rat - 6,944 mg/kg
Remarks: Liver:Changes in liver weight. Kidney, Ureter, Bladder:Changes in tubules (including Acute renal failure, acute tubular necrosis). Kidney, Ureter, Bladder:Other changes.

TDLo Oral - rat - 48,750 mg/kg
Remarks: Brain and Coverings:Other degenerative changes. Liver:Changes in liver weight. Kidney, Ureter, Bladder:Other changes.

TDLo Oral - rabbit - 12,000 mg/kg
Remarks: Liver:Other changes. Kidney, Ureter, Bladder:Other changes. Nutritional and Gross Metabolic:Weight loss or decreased weight gain.
Inhalation: Behavioral:Muscle weakness.

LD50 Dermal - rabbit - 32,000 mg/kg
LD50 Intraperitoneal - mouse - 4,500 mg/kg
LDLO Intraperitoneal - rat - 2,900 mg/kg
LDLO Intravenous - dog - 325 mg/kg
Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitization
No data available
Germ cell mutagenicity
Hamster - ovary
Sister chromatid exchange

Carcinogenicity
This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Hexachloroethane)

NTP: Reasonably anticipated to be a human carcinogen (Hexachloroethane)

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Aspiration hazard
No data available

12. ECOLOGICAL INFORMATION

Hexachloroethane
Toxicity

Toxicity to fish	NOEC - Cyprinodon variegatus (sheepshead minnow) - 1 mg/l - 96h
Toxicity to daphnia And other aquatic invertebrates	LC50 - Daphnia magna (Water flea) - 1.36 mg/l - 48 h

Persistence and degradability

Biodegradability	Result: - Not biodegradable (OECD Test Guideline 301)

Bioaccumulative potential

Bioaccumulation	Lepomis macrochirus (Bluegill) - 28 d - 0.00617 mg/l Bioconcentration factor (BCF): 139

Mobility in soil
No data available

Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

No additional information available

Potassium Fluoborate

ACUTE: This material can burn and damage eyes, skin, mucous membranes, and any other exposed tissue. If inhaled, irritation of the respiratory system may occur, with coughing, and breathing difficulty. Severe inhalation may be fatal. Though unlikely to occur during occupational use, ingestion of large quantities may be fatal.

CHRONIC: Persistent irritation may result from repeated low-level exposures to this compound. Repeated inhalation exposure to low levels of this compound can result in permanent damage to the respiratory system.

TARGET ORGANS: ACUTE: Skin, eyes, respiratory system.

CHRONIC: Skin, respiratory system. TOXICITY DATA: Currently, there are no specific toxicology data currently available for Potassium Fluoborate.

The following are toxicological data for the related compound:

LD50 (Intraperitoneal-Rat) 240 mg/kg

LD50 (Intraperitoneal-Mouse) 590 mg/kg

LD50 (Intraperitoneal-Rabbit) 380 mg/kg

CARCINOGENIC POTENTIAL: As an inorganic fluoride and an inorganic borate compound, this material is listed by agencies tracking the carcinogenic effect of chemical compounds, as follows: INORGANIC FLUORIDES, as F: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); IARC-3 (Unclassifiable as to Carcinogenicity in Humans) INORGANIC BORATE COMPOUNDS: ACGIH TLV-A4 (Not Classifiable as a Human Carcinogen); IRRITANCY OF PRODUCT: This compound is moderately to severely irritating or will cause burns to all contaminated tissue.

SENSITIZATION TO THE PRODUCT: This compound is not known to be a human skin or respiratory sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this compound on the human reproductive system.

Mutagenicity: Potassium Fluoborate is not reported to cause reproductive effects in humans.

Embryotoxicity: Potassium Fluoborate is not reported to produce embryotoxic effects in humans.

Teratogenicity: Potassium Fluoborate is not reported to cause teratogenic effects in humans.

Reproductive Toxicity: Potassium Fluoborate is not reported to cause reproductive effects in humans.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an after burner and scrubber.

Contaminated packaging

Dispose of as unused product.

Waste Disposal Method: Waste disposal should be in accordance with existing federal, state and local environmental regulations.

14. TRANSPORT INFORMATION

DOT Road Shipment Information

PROPER SHIPPING NAME: Environmentally Hazardous Substances, Solid, N.O.S. (Hexachloroethane)
IDENTIFICATION NUMBER: UN 3077
DOT LABEL(S) REQUIRED: Class 9
PACKING GROUP: III

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):

PROPER SHIPPING NAME: Environmentally Hazardous Substances, Solid, N.O.S. (Hexachloroethane)
IDENTIFICATION NUMBER: UN 3077
DOT LABEL(S) REQUIRED: Class 9
PACKING GROUP: III

INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG):

PROPER SHIPPING NAME:	Environmentally Hazardous Substances, Solid, N.O.S. (Hexachloroethane)
IDENTIFICATION NUMBER:	UN 3077
DOT LABEL(S) REQUIRED:	Class 9
PACKING GROUP:	III
REPORTABLE QUANTITY:	RQ 100 lbs. (45.5 kgs.)
EmS:	Fire F-A Spill S-A

15. REGULATORY INFORMATION

Risk phases : R22 Harmful if swallowed.

Safety Phases : S22 Do not inhale dust.
S24/25 Avoid contact with skin and eyes.

16. OTHER INFORMATION

Date prepared: August 15, 2016

The information provided above is believed to be accurate and represent the best and most recent information currently available to us. However we make no guarantee/warranty or implant ability or any other warranty, expressed or implied and we assume no liability resulting from its use, handling or contact with the above product. Users should make their own investigations to determine the suitability of the information for their particular purposes. Information provided in this document is based on present knowledge available and is applicable to the product with regard to appropriate safety precautions. Information is not intended to be all inclusive and shall be used only as a guide or for reference. Skyline Chemical Corp shall not be held liable for any damage resulting from handling the above product.